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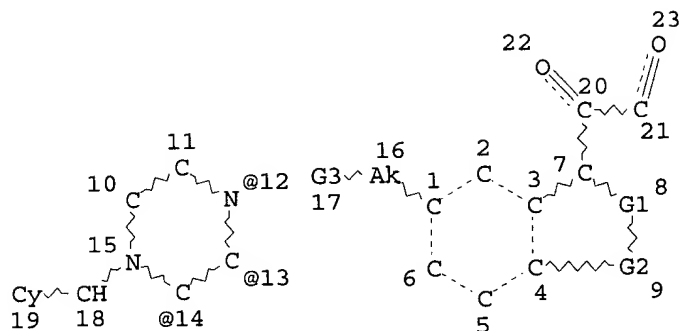
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FILE COVERS 1907 - 17 Dec 2002 VOL 137 ISS 25  
FILE LAST UPDATED: 16 Dec 2002 (20021216/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s l12

L13 2 L12

=> d bib abs 1-2

L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS

AN 2002:408665 CAPLUS

DN 136:401784

TI Preparation of piperidinylcarbonyl- and piperazinylcarbonylindolylglyoxylates and -amides as inhibitors of p38-.alpha. kinase

IN Dugar, Sundeep; Luedtke, Gregory; Tan, Xuefei

PA Scios Inc., USA

SO PCT Int. Appl., 97 pp.

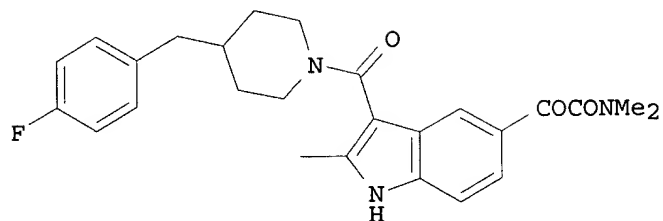
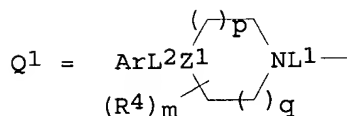
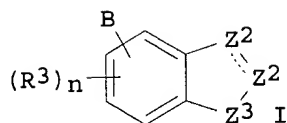
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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PRAI	US 2000-252197P	P	20001120		
	WO 2001-US43441	W	20011120		
OS	MARPAT 136:401784				
GI					



II

AB [Title compds. I; dotted line = optional double bond; B = WiCOXjY; Y = COR2, isostere thereof; R2 = H, noninterfering substituent; W, X = spacer of 2-6 .ANG.; i, j = 0, 1; R3 = noninterfering substituent; n = 0-3; Z3 = NR7, O; R7 = H, noninterfering substituent; 1 Z2 = C, CR8A, the other = CR1, C(R1)2, NR6, N; R1, R6, R8 = H, noninterfering substituent; A = Q1; Z1 = CR5, N; R5 = H, noninterfering substituent; p, q = 0-2; p+q = 0-3; Ar = aryl group substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring; R4 = noninterfering substituent; m is 0-4; L1, L2 = linker; the distance between the atom of Ar linked to L2 and the center of the Z2-contg. ring = 4.5-24.ANG.], were prepd. as inhibitors of p38-.alpha. kinase (no data). Thus, title compd. (II) was prepd. in several steps starting from 4-nitrophenylglyoxylic acid.

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

AN 2000:842127 CAPLUS

DN 134:17503

TI Preparation of 5-[4-benzylpiperidinyl(piperazinyl)]-indolecarboxamides as inhibitors of p38 kinase

IN Mavunkel, Babu J.; Chakravarty, Sarvajit; Perumattam, John J.; Dugar, Sundeep; Lu, Qing; Liang, Xi

PA Scios Inc., USA

SO PCT Int. Appl., 85 pp.

CODEN: PIXXD2

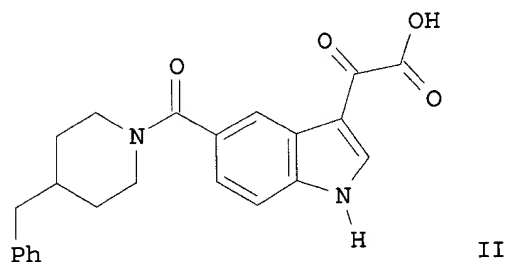
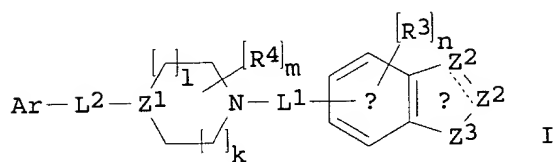
DT Patent

LA English

FAN.CNT 5

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PRAI	US 1999-316761	A	19990521		
	US 1999-154594P	P	19990917		

US 2000-202608P P 20000509  
 WO 2000-US14003 W 20000519  
 OS MARPAT 134:17503  
 GI



AB The title compds. [I; one Z2 = CA, CR8A and the other = CR1, CR12, NR6, N (wherein R1, R6, R8 = H, noninterfering substituent; A = WiCOXjY; Y = COR2, an isostere; R2 = H, noninterfering substituent; W, X = spacer of 2-6.ANG.; i, j = 0-1); Z3 = NR7, O; R3 = noninterfering substituent; n = 0-3; L1, L2 = linker; R4 = noninterfering substituent; m = 0-4; Z1 = CR5, N (R5 = H, noninterfering substituent); l, k = 0-2, wherein the sum of l and k = 0-3; Ar = aryl substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring; the distance between the atom of Ar linked to L2 and the center of the .alpha. ring is 4.5-24.ANG.] which inhibit p38-.alpha. kinase (biol. data given), were prepd. Thus, treating 6-methoxy-(4-benzylpiperidinyl)-indole-5-carboxamide with oxalyl chloride in CH2Cl2 afforded the indole-5-carboxamide II.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d bib abs hitstr 1

L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS  
 AN 2002:408665 CAPLUS  
 DN 136:401784  
 TI Preparation of piperidinylicarbonyl- and piperazinylcarbonylindolylglyoxylates and -amides as inhibitors of p38-.alpha. kinase  
 IN Dugar, Sundee; Luedtke, Gregory; Tan, Xuefei  
 PA Scios Inc., USA  
 SO PCT Int. Appl., 97 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042292	A2	20020530	WO 2001-US43441	20011120

WO 2002042292 A3 20021017

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
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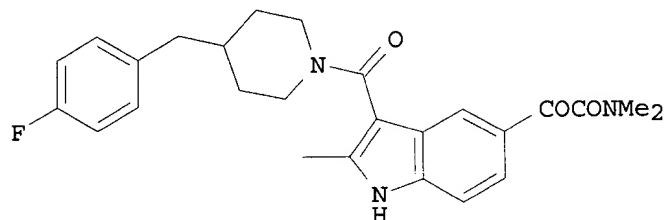
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PRAI US 2000-252197P P 20001120

WO 2001-US43441 W 20011120

OS MARPAT 136:401784

GI



II

AB [Title compds. I; dotted line = optional double bond; B = WiCOXjY; Y = COR2, isostere thereof; R2 = H, noninterfering substituent; W, X = spacer of 2-6 .ANG.; i, j = 0, 1; R3 = noninterfering substituent; n = 0-3; Z3 = NR7, O; R7 = H, noninterfering substituent; 1 Z2 = C, CR8A, the other = CR1, C(R1)2, NR6, N; R1, R6, R8 = H, noninterfering substituent; A = Q1; Z1 = CR5, N; R5 = H, noninterfering substituent; p, q = 0-2; p+q = 0-3; Ar = aryl group substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring; R4 = noninterfering substituent; m is 0-4; L1, L2 = linker; the distance between the atom of Ar linked to L2 and the center of the Z2-contg. ring = 4.5-24.ANG.], were prepd. as inhibitors of p38-.alpha. kinase (no data). Thus, title compd. (II) was prepd. in several steps starting from 4-nitrophenylglyoxylic acid.

IT 309915-13-7P

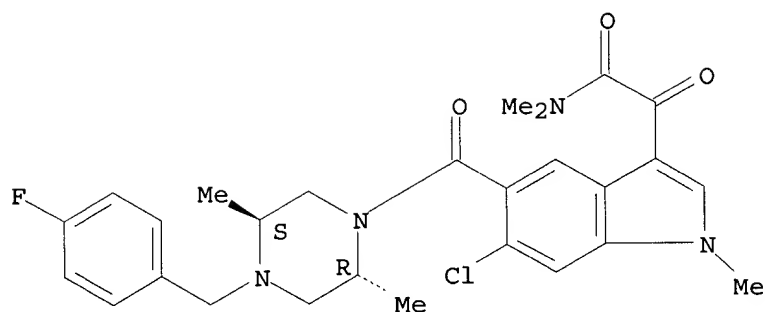
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of piperidinylcarbonyl- and piperazinylcarbonylindolylglyoxylates and -amides as inhibitors of p38-.alpha. kinase)

RN 309915-13-7 CAPLUS

CN 1H-Indole-3-acetamide, 6-chloro-5-[[[(2R,5S)-4-[(4-fluorophenyl)methyl]-2,5-dimethyl-1-piperazinyl]carbonyl]-N,N,1-trimethyl-.alpha.-oxo-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



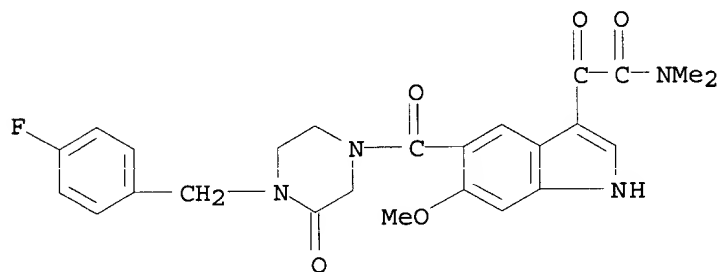
IT 309915-14-8 309915-15-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of piperidinylcarbonyl- and piperazinylcarbonylindolylglyoxylates and -amides as inhibitors of p38-.alpha. kinase)

RN 309915-14-8 CAPLUS

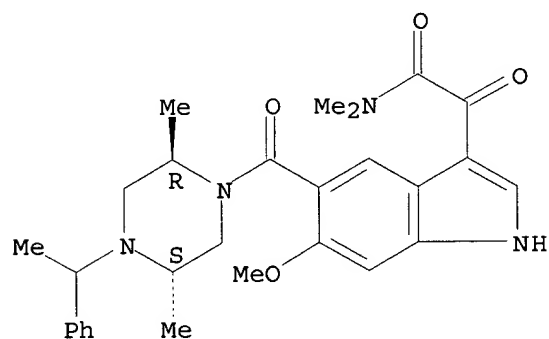
CN 1H-Indole-3-acetamide, 5-[[4-[(4-fluorophenyl)methyl]-3-oxo-1-piperazinyl]carbonyl]-6-methoxy-N,N-dimethyl-.alpha.-oxo- (9CI) (CA INDEX NAME)



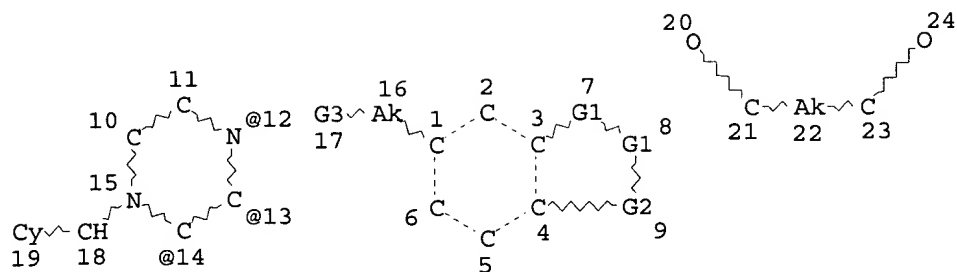
RN 309915-15-9 CAPLUS

CN 1H-Indole-3-acetamide, 5-[[[(2R,5S)-2,5-dimethyl-4-(1-phenylethyl)-1-piperazinyl]carbonyl]-6-methoxy-N,N-dimethyl-.alpha.-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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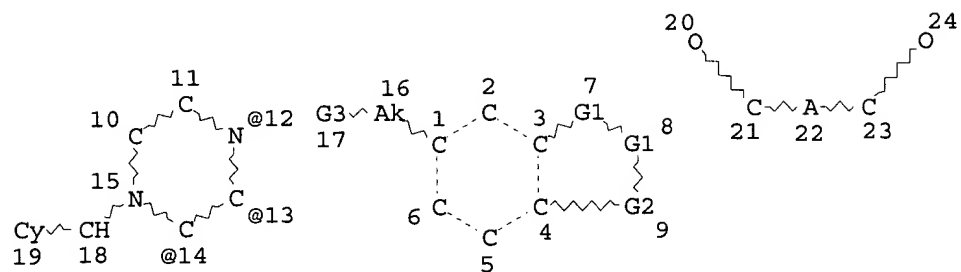
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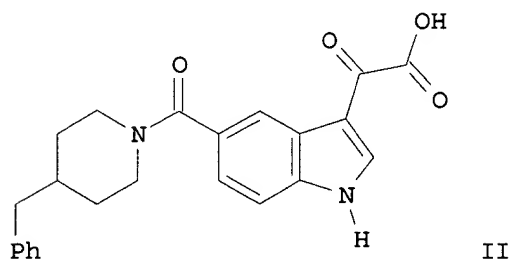
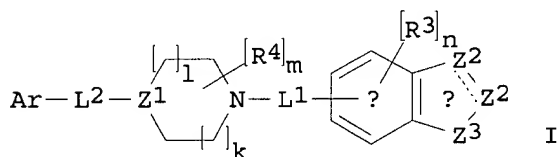
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AN 2000:842127 CAPLUS  
 DN 134:17503  
 TI Preparation of 5-[4-benzylpiperidinyl(piperazinyl)]-indolecarboxamides as  
 inhibitors of p38 kinase  
 IN Mavunkel, Babu J.; Chakravarty, Sarvajit; Perumattam, John J.; Dugar,  
 Sundeep; Lu, Qing; Liang, Xi  
 PA Scios Inc., USA  
 SO PCT Int. Appl., 85 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
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	WO 2000-US14003	W	20000519		
OS	MARPAT 134:17503				
GI					



AB The title compds. [I; one Z2 = CA, CR8A and the other = CR1, CR12, NR6, N (wherein R1, R6, R8 = H, noninterfering substituent; A = WiCOXjY; Y =

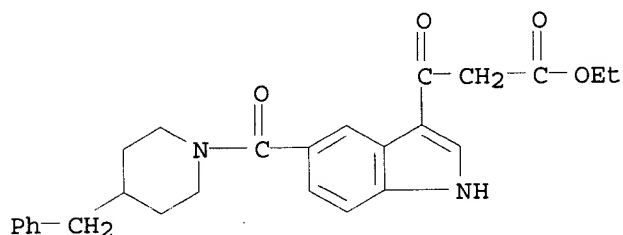
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IT 309915-11-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of 5-[4-benzylpiperidiny1(piperazinyl)]-indolecarboxamides as inhibitors of p38 kinase)

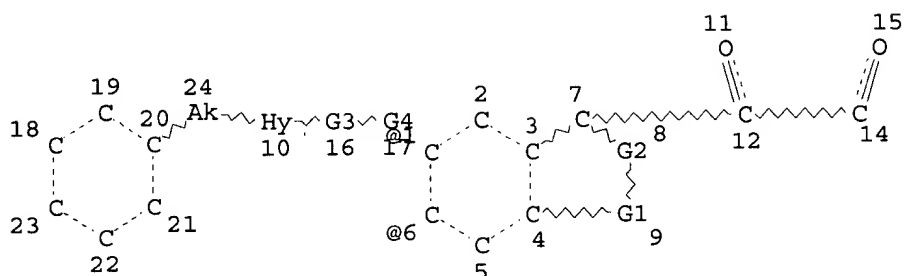
RN 309915-11-5 CAPLUS

CN 1H-Indole-3-propanoic acid, .beta.-oxo-5-[[4-(phenylmethyl)-1-piperidiny1]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE COVERS 1907 - 17 Dec 2002 VOL 137 ISS 25  
FILE LAST UPDATED: 16 Dec 2002 (20021216/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

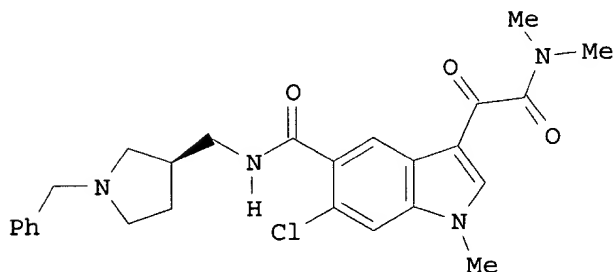
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L16 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS  
AN 2002:428896 CAPLUS  
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TI Preparation of indolecarboxamides as p38-.alpha. inhibitors  
IN Dugar, Sundee; Mavunkel, Babu J.; Luedtke, Gregory R.; Mcenroe, Glen  
PA Scios Inc., USA  
SO PCT Int. Appl., 64 pp.  
CODEN: PIXXD2  
DT Patent  
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044168	A2	20020606	WO 2001-US43439	20011120
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002037657	A5	20020611	AU 2002-37657	20011120
PRAI	US 2000-252163P	P	20001120		
	WO 2001-US43439	W	20011120		
OS	MARPAT 137:6088				
GI					



AB Title compds. were prepd. as p38-.alpha. inhibitors (no data). Thus, 6-chloro-1-methyl-1H-indole-5-carboxylic acid was amidated by (R)-3-aminomethyl-1-benzylpyrrolidine followed by acylation and amidation to give title compd. I.

L16 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

AN 2002:408665 CAPLUS

DN 136:401784

TI Preparation of piperidinylcarbonyl- and piperazinylcarbonylindolylglyoxylates and -amides as inhibitors of p38-.alpha. kinase

IN Dugar, Sundeep; Luedtke, Gregory; Tan, Xuefei

PA Scios Inc., USA

SO PCT Int. Appl., 97 pp.

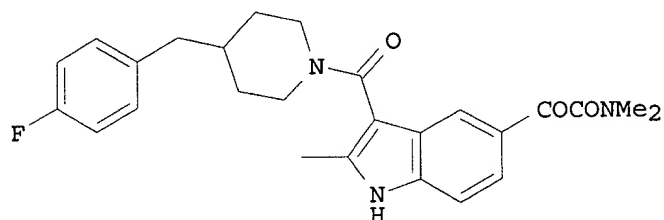
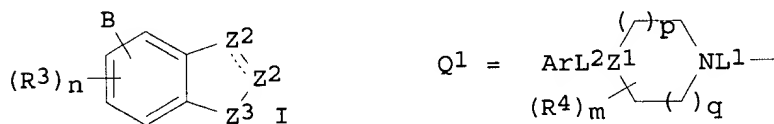
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002042292	A2	20020530	WO 2001-US43441	20011120
	WO 2002042292	A3	20021017		
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	AU 2002026911	A5	20020603	AU 2002-26911	20011120
PRAI	US 2000-252197P	P	20001120		
	WO 2001-US43441	W	20011120		
OS	MARPAT 136:401784				
GI					



II

AB [Title compds. I; dotted line = optional double bond; B = WiCOXjY; Y = COR2, isostere thereof; R2 = H, noninterfering substituent; W, X = spacer of 2-6 .ANG.; i, j = 0, 1; R3 = noninterfering substituent; n = 0-3; Z3 = NR7, O; R7 = H, noninterfering substituent; 1 Z2 = C, CR8A, the other = CR1, C(R1)2, NR6, N; R1, R6, R8 = H, noninterfering substituent; A = Q1; Z1 = CR5, N; R5 = H, noninterfering substituent; p, q = 0-2; p+q = 0-3; Ar

= aryl group substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring; R4 = noninterfering substituent; m is 0-4; L1, L2 = linker; the distance between the atom of Ar linked to L2 and the center of the Z2-contg. ring = 4.5-24.ANG.], were prepd. as inhibitors of p38-.alpha. kinase (no data). Thus, title compd. (III) was prepd. in several steps starting from 4-nitrophenylglyoxylic acid.

L16 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS

AN 2000:842127 CAPLUS

DN 134:17503

TI Preparation of 5-[4-benzylpiperidinyl(piperazinyl)]-indolecarboxamides as inhibitors of p38 kinase

IN Mavunkel, Babu J.; Chakravarty, Sarvajit; Perumattam, John J.; Dugar, Sundeep; Lu, Qing; Liang, Xi

PA Scios Inc., USA

SO PCT Int. Appl., 85 pp.

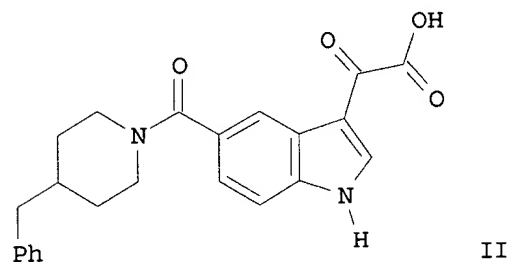
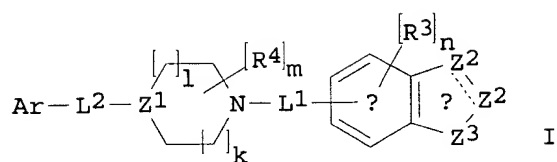
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP	1178983	A1	20020213	EP 2000-939322	20000519
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR	2000011274	A	20020226	BR 2000-11274	20000519
NO	2001005655	A	20020118	NO 2001-5655	20011120
PRAI	US 1999-316761	A	19990521		
	US 1999-154594P	P	19990917		
	US 2000-202608P	P	20000509		
	WO 2000-US14003	W	20000519		
OS	MARPAT 134:17503				
GI					

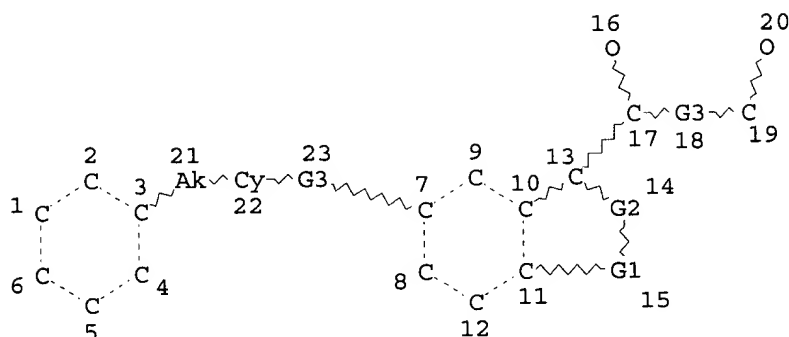


AB The title compds. [I; one Z2 = CA, CR8A and the other = CR1, CR12, NR6, N (wherein R1, R6, R8 = H, noninterfering substituent; A = WiCOXjY; Y = COR2, an isostere; R2 = H, noninterfering substituent; W, X = spacer of 2-6.ANG.; i, j = 0-1); Z3 = NR7, O; R3 = noninterfering substituent; n = 0-3; L1, L2 = linker; R4 = noninterfering substituent; m = 0-4; Z1 = CR5, N (R5 = H, noninterfering substituent); l, k = 0-2, wherein the sum of l and k = 0-3; Ar = aryl substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring; the distance between the atom of Ar linked to L2 and the center of the .alpha. ring is 4.5-24.ANG.] which inhibit p38-.alpha. kinase (biol. data given), were prepd. Thus, treating 6-methoxy-(4-benzylpiperidinyl)-indole-5-carboxamide with oxalyl chloride in CH2Cl2 afforded the indole-5-carboxamide II.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT



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 L9 HAS NO ANSWERS  
 L9 STR



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 VAR G2=C/N  
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 DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE

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FILE LAST UPDATED: 16 Dec 2002 (20021216/ED)

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the CAS Roles thesaurus (/RL field) in this file.

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L12 4 L11

=> d bib 1-4

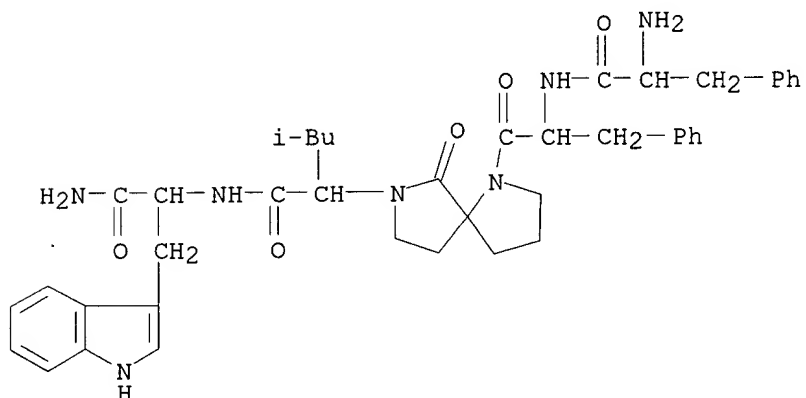
L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS  
AN 2002:428896 CAPLUS  
DN 137:6088  
TI Preparation of indolecarboxamides as p38-.alpha. inhibitors  
IN Dugar, Sundee; Mavunkel, Babu J.; Luedtke, Gregory R.; Mcenroe, Glen  
PA Scios Inc., USA  
SO PCT Int. Appl., 64 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002037657	A5	20020611	AU 2002-37657	20011120
PRAI	US 2000-252163P	P	20001120		
	WO 2001-US43439	W	20011120		
OS	MARPAT 137:6088				

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS  
AN 2002:408665 CAPLUS  
DN 136:401784  
TI Preparation of piperidinylcarbonyl- and piperazinylcarbonylindolylglyoxyla  
tes and -amides as inhibitors of p38-.alpha. kinase  
IN Dugar, Sundee; Luedtke, Gregory; Tan, Xuefei  
PA Scios Inc., USA  
SO PCT Int. Appl., 97 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

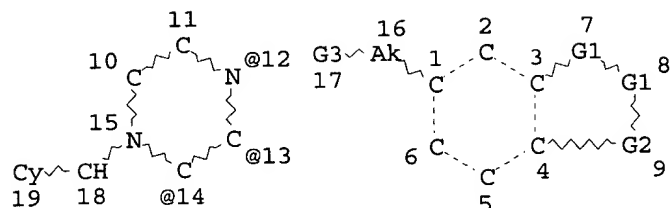
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002042292	A2	20020530	WO 2001-US43441	20011120
	WO 2002042292	A3	20021017		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,			

RN 129605-73-8 REGISTRY  
 CN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]-.alpha.-(2-methylpropyl)-6-oxo-1-(N-L-phenylalanyl-L-phenylalanyl)-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE  
 MF C42 H51 N7 O5  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL



1 REFERENCES IN FILE CA (1907 TO DATE)  
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VAR G2=O/N
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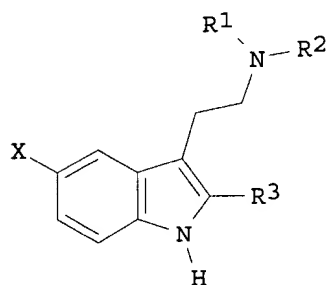
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346 ANSWERS

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L10 346 SEA SSS FUL L8
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AN 1997:369604 CAPLUS  
 DN 126:343487  
 TI Preparation of N-(2-substituted-3-(2-aminoethyl)-1H-indol-5-yl) amides as  
 new 5-HT1F agonists  
 IN Fritz, James Erwin; Hahn, Patric James; Kaldor, Stephen Warren; Siegel,  
 Miles Goodman; Xu, Yao-Chang  
 PA Lilly, Eli, and Co., USA  
 SO Eur. Pat. Appl., 52 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 768301	A1	19970416	EP 1996-307334	19961009
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	CA 2234166	AA	19970417	CA 1996-2234166	19961008
	WO 9713512	A1	19970417	WO 1996-US16122	19961008
	W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9672611	A1	19970430	AU 1996-72611	19961008
	JP 11513666	T2	19991124	JP 1996-515134	19961008
	EP 994109	A2	20000419	EP 1999-204311	19961009
	EP 994109	A3	20000503		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
	US 5942536	A	19990824	US 1998-43360	19980313
	US 5998630	A	19991207	US 1999-316871	19990521
	US 6126932	A	20001003	US 1999-416043	19991012
PRAI	US 1995-5213P	P	19951010		
	US 1996-15851P	P	19960522		
	WO 1996-US16122	W	19961008		
	EP 1996-307334	A3	19961009		
OS	MARPAT 126:343487				
GI					



AB The title compds. [I; R1, R3 = H, C1-4 alkyl; R2 = C1-4 alkyl, C3-8 cycloalkyl, cycloalkyl-(C1-3 alkylene), etc.; X = NHC(O)R4, NHC(Y)NR5R6, NHC(O)OR7, NHSO2R8 (wherein R4 = C1-4 alkyl, (un)substituted Ph, naphthyl, etc.; R5, R6 = H, C1-6 alkyl, C3-6 alkenyl, etc.; R5R6 = pyrrolidino, piperidino, morpholino, etc.; R7 = C1-6 alkyl, C3-6 alkenyl, Ph, etc.; R8 = C1-4 alkyl, (un)substituted Ph, di(C1-4 alkyl)amino; Y = S, O] and their salts, novel 5-HT1F agonists useful for the treatment of migraine and assocd. disorders, were prepd. and formulated. Thus, cyclization of

N,N-dimethyl-5-amino-2-pentanone with 4-[(4-fluorobenzoyl)amino]phenylhydrazine in the presence of conc. HCl in EtOH afforded 63% I.HCl [R1 = R2 = Me; R3 = Me; 4-FC6H4C(O)NH]. Representative compds. I were found to have an affinity at the 5-HT1F receptor of  $K_i$  .ltoreq. 1.5 .mu.M.

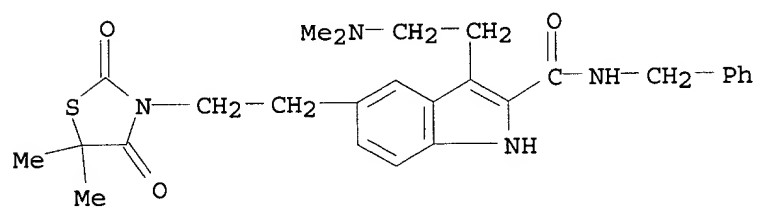
AN 1999:605549 CAPLUS  
DN 132:49849  
TI Synthesis and serotonergic activity of a series of 2-(N-benzyl)carboxamido-5-substituted-N,N-dimethyltryptamine derivatives: novel antagonists for the vascular 5-HT<sub>1B</sub>-like receptors  
AU Moloney, Gerard P.; Martin, Graeme R.; Mathews, Neil; Hobbs, Heather; Dodsworth, Susan; Sang, Pang Yih; Knight, Cameron; Maxwell, Miles; Glen, Robert C.  
CS Department of Medicinal Chemistry, Victorian College of Pharmacy (Monash University), Parkville, 3052, Australia  
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1999), (19), 2699-2711  
CODEN: JCPRB4; ISSN: 0300-922X  
PB Royal Society of Chemistry  
DT Journal  
LA English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

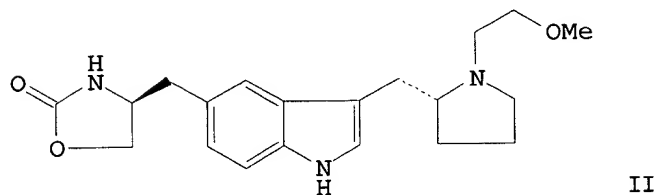
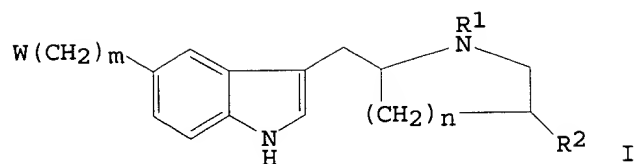
AB The synthesis and vascular 5-HT<sub>1B</sub>-like receptor activity of a novel series of 2-(N-benzyl)carboxamido-5-substituted-N,N-dimethyltryptamine derivs. is described. Modifications to the 5-ethylene linked heterocycle are explored. Compds. such as N-benzyl-5-[2-(phthalimido)ethyl]-3-[2-(dimethylamino)ethyl]-1H-indole-2-carboxamide (I; R<sub>1</sub> = H) (pK<sub>B</sub> = 7.33), the 2-aminobenzyl analog I (R<sub>1</sub> = NH<sub>2</sub>) (pK<sub>B</sub> = 7.19), and N-benzyl-5-[2-(1-benzyl-2,5-dioxoimidazolidin-4-yl)ethyl]-3-[2-(di-Me amino)ethyl]-1H-indole-2-carboxamide (II) (pK<sub>B</sub> = 7.05) have good 5-HT<sub>1B</sub>-like affinity and indicate that there may be a hydrophobic binding pocket within the vascular 5-HT<sub>1B</sub>-like receptor previously not considered. Compds. including N-benzyl-3-[2-(dimethylamino)ethyl]-5-[2-(2,4-dioxo-1,3-thiazolidinyl)ethyl]-1H-indole-2-carboxamide (III; R<sub>1</sub> = H) (pK<sub>B</sub> = 7.35) and the di-Me analog III (R<sub>1</sub> = Me) (pK<sub>B</sub> = 7.48) have good vascular 5-HT<sub>1B</sub>-like receptor affinity and show that the sulfur atom is well tolerated. Dioxoimidazolinyl compd. IV which includes a methylsulfonyl substituent on the 1-nitrogen of the hydantoin ring system has the highest recorded 5-HT<sub>1B</sub>-like affinity for this series (pK<sub>B</sub> = 7.54) and it is proposed that this functional group can interact with a secondary hydrogen bonding region within the receptor. Compds. I-IV also exhibited good selectivity over the .alpha.1-adrenoceptors. The most selective compd. from this series is III (R<sub>1</sub> = Me) which is 66-fold selective over the .alpha.1-adrenoceptors. This finding is consistent with the previous discovery that 5,5-di-Me substitution on the hydantoin group in a related series of compds. afforded superior selectivity for 5-HT<sub>1B</sub>-like receptors over .alpha.1-adrenoceptors and other 5-HT receptors, in particular 5-HT<sub>2A</sub> receptors, relative to unsubstituted hydantoin analogs. The selectivity of these compds. for the vascular 5-HT<sub>1B</sub>-like receptor is discussed. Structure-activity relationship indicated a significant steric requirement of the 5-HT<sub>1B</sub>-like receptor subtype. Potential modes of binding for several of the compds. to a vascular 5-HT<sub>1B</sub>-like receptor pharmacophore model are also proposed.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IN 1H-Indole-2-carboxamide, 3-[2-(dimethylamino)ethyl]-5-[2-(5,5-  
dimethyl-2,4-dioxo-3-thiazolidinyl)ethyl]-N-(phenylmethyl)- (9CI)  
MF C27 H32 N4 O3 S







AB Three members of claimed **indoles** I [ $n = 0-2$ ;  $m = 0-3$ ;  $W = 7$  types of oxo- and/or thioxo-substituted azolidinyl radicals (pyrrolidinyl, imidazolidinyl, oxazolidinyl, **thiazolidinyl**) with optional addnl. substituents;  $R_1 = H$ , (hydroxy)alkyl, alkenyl, alkynyl, aryl, alkylaryl (sic, e.g.,  $CH_2Ph$ ), alkylheteroaryl, certain heterofunctional-terminated alkyl;  $R_2 = H$ ,  $OR_3$ ,  $NHCOR_3$ ;  $R_3 = H$ , , alkyl, aryl, alkylaryl], potent **5-HT1** agonists (no data), were prepd. for treatment of hypertension, depression, anxiety, obesity, migraine, etc. For example, Mitsunobu coupling of the alc. (R)-1-(N-benzyloxycarbonylpyrrolidin-2-yl)-3-hydroxypropene with 2-bromo-4-(2-oxo-1,3-oxazolidin-4(S)-ylmethyl)-1-(trifluoroacetylaminobenzene at the amide N (100% yield), followed by  $Pd(OAc)_2$ -catalyzed cyclization to an **indole** (40%), hydrogenolytic deprotection (89%), and N-alkylation with  $MeOCH_2CH_2Br$  (36%), gave title compd. II.

AN 1994:106761 CAPLUS  
 DN 120:106761  
 TI Indole derivatives as serotonin receptor (5-HT1) agonists  
 IN Macor, John E.; Wythes, Martin J.  
 PA Pfizer Inc., USA  
 SO PCT Int. Appl., 43 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9320073	A1	19931014	WO 1993-US1967	19930310
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	AU 9337898	A1	19931108	AU 1993-37898	19930310
	AU 670579	B2	19960725		
	EP 635017	A1	19950125	EP 1993-907216	19930310
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	JP 07504919	T2	19950601	JP 1993-517443	19930310
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	PL 172405	B1	19970930	PL 1993-305555	19930310
	RU 2101283	C1	19980110	RU 1994-45897	19930310
	BR 9306201	A	19980623	BR 1993-6201	19930310
	SK 280193	B6	19990910	SK 1994-1206	19930310
	IL 105206	A1	19990411	IL 1993-105206	19930329
	ZA 9302440	A	19941005	ZA 1993-2440	19930405
	HU 64062	A2	19931129	HU 1993-1003	19930406
	CN 1082543	A	19940223	CN 1993-105697	19930406
	CN 1050841	B	20000329		
	US 5747501	A	19980505	US 1994-295798	19940916
	NO 9403762	A	19941006	NO 1994-3762	19941006
	US 6150388	A	20001121	US 1998-59799	19980414
	CN 1225362	A	19990811	CN 1998-116024	19980708
	CN 1083443	B	20020424		
	US 6410739	B1	20020625	US 2000-694808	20000102
	US 6380233	B1	20020430	US 2000-694838	20001023
	US 6387937	B1	20020514	US 2000-694394	20001023
	US 6387941	B1	20020514	US 2000-694809	20001023
	US 6436957	B1	20020820	US 2000-694387	20001023
	US 6465500	B1	20021015	US 2000-694588	20001023
PRAI	US 1992-864737	A2	19920407		
	WO 1993-US1967	A	19930310		
	US 1994-295798	A3	19940916		
	US 1998-59799	A3	19980414		
OS	MARPAT 120:106761				
GI					

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BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002026911 A5 20020603 AU 2002-26911 20011120  
PRAI US 2000-252197P P 20001120  
WO 2001-US43441 W 20011120  
OS MARPAT 136:401784

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 2000:842127 CAPLUS

DN 134:17503

TI Preparation of 5-[4-benzylpiperidinyl(piperazinyl)]-indolecarboxamides as  
inhibitors of p38 kinase

IN Mavunkel, Babu J.; Chakravarty, Sarvajit; Perumattam, John J.; Dugar,  
Sundeep; Lu, Qing; Liang, Xi

PA Scios Inc., USA

SO PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000071535	A1	20001130	WO 2000-US14003	20000519
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	EP 1178983	A1	20020213	EP 2000-939322	20000519
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	BR 2000011274	A	20020226	BR 2000-11274	20000519
	NO 2001005655	A	20020118	NO 2001-5655	20011120
PRAI	US 1999-316761	A	19990521		
	US 1999-154594P	P	19990917		
	US 2000-202608P	P	20000509		
	WO 2000-US14003	W	20000519		

OS MARPAT 134:17503

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1992:651348 CAPLUS

DN 117:251348

TI Preparation of [(aminoalkyl)indolyl]thiazoles as 5-HT1 receptor agonists

IN Nowakowski, Jolanta Teresa

PA Pfizer Inc., USA

SO PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DT Patent

LA English

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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9213856	A1	19920820	WO 1992-US556	19920203

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AU 9212637 A1 19920907 AU 1992-12637 19920203  
AU 655456 B2 19941222  
EP 571471 A1 19931201 EP 1992-904837 19920203  
EP 571471 B1 19960306  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE  
JP 06500122 T2 19940106 JP 1992-505422 19920203  
JP 07121942 B4 19951225  
HU 65766 A2 19940728 HU 1993-2328 19920203  
AT 135005 E 19960315 AT 1992-904837 19920203  
ES 2084347 T3 19960501 ES 1992-904837 19920203  
ZA 9200969 A 19930811 ZA 1992-969 19920211  
US 5409941 A 19950425 US 1993-94208 19930806  
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WO 1992-US556 19920203  
OS MARPAT 117:251348

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L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS

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144340-59-0P 144340-60-3P 144340-61-4P

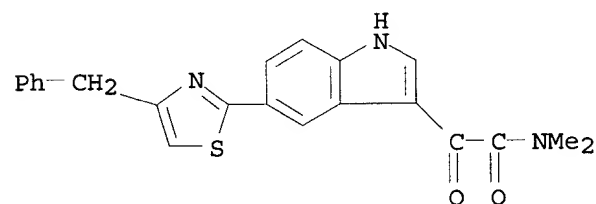
144340-71-6P 144340-72-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as intermediate for 5-HT1 receptor agonists)

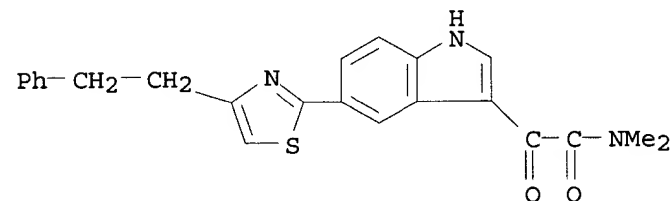
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CN 1H-Indole-3-acetamide, N,N-dimethyl-.alpha.-oxo-5-[4-(phenylmethyl)-2-thiazolyl]- (9CI) (CA INDEX NAME)



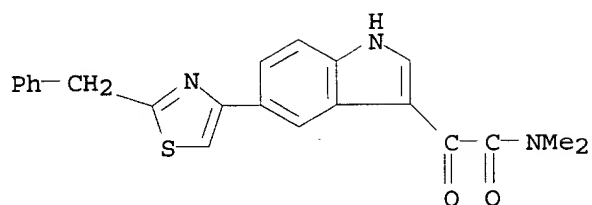
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CN 1H-Indole-3-acetamide, N,N-dimethyl-.alpha.-oxo-5-[4-(2-phenylethyl)-2-thiazolyl]- (9CI) (CA INDEX NAME)



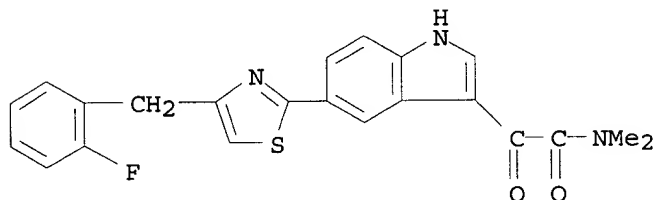
RN 144340-58-9 CAPLUS

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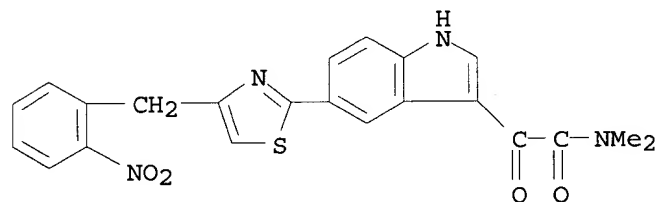
RN 144340-59-0 CAPLUS

CN 1H-Indole-3-acetamide, 5-[4-[(2-fluorophenyl)methyl]-2-thiazolyl]-N,N-dimethyl-.alpha.-oxo- (9CI) (CA INDEX NAME)



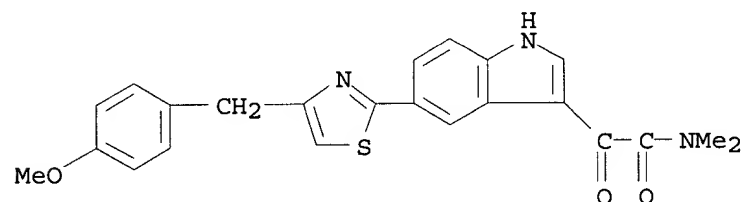
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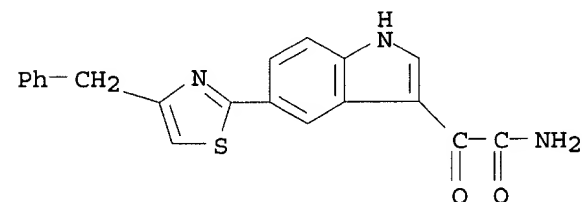
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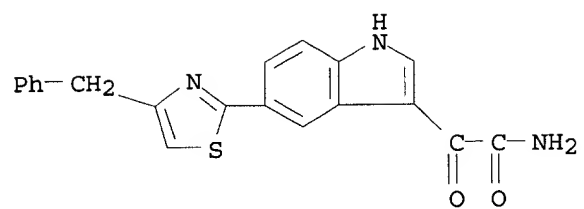
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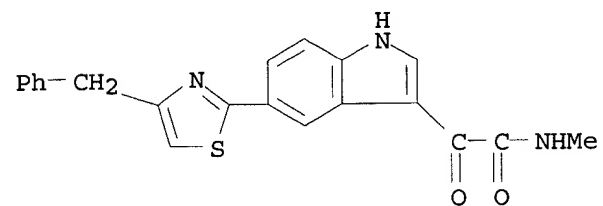
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CN 1H-Indole-3-acetamide, .alpha.-oxo-5-[4-(phenylmethyl)-2-thiazolyl]- (9CI) (CA INDEX NAME)





RN 144340-72-7 CAPLUS  
 CN 1H-Indole-3-acetamide, N-methyl-.alpha.-oxo-5-[4-(phenylmethyl)-2-thiazolyl]- (9CI) (CA INDEX NAME)



FAN.CNT 1

OS  
GICN(C)C(=O)c1c[nH]c2cc(Cl)c(cc12)C(=O)N[C@H]3CCN(CC3)c4ccccc4

AB Title compds. were prepd. as p38-.alpha. inhibitors (no data). Thus, 6-chloro-1-methyl-1H-indole-5-carboxylic acid was amidated by (R)-3-aminomethyl-1-benzylpyrrolidine followed by acylation and amidation to give title compd. I.

IT 433286-59-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

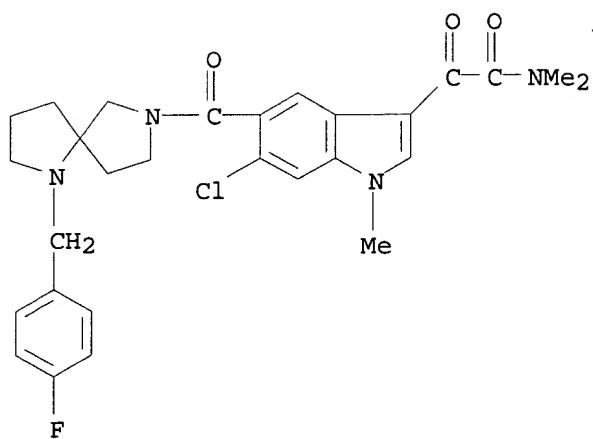
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RN 433286-59-0 CAPLUS

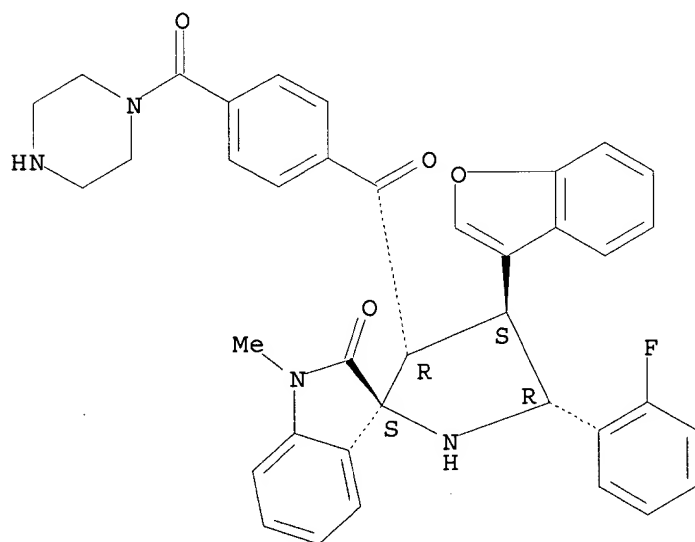
CN 1H-Indole-3-acetamide, 6-chloro-5-[[1-[(4-fluorophenyl)methyl]-1,7-diazaspiro[4.4]non-7-yl]carbonyl]-N,N,1-trimethyl-.alpha.-oxo- (9CI) (CA INDEX NAME)





AN 2002:324773 CAPLUS  
 DN 137:294931  
 TI 2-(3-Aminopropyl)-4-pentenoic acid as a bio-compatible/cleavable linker  
 for solid-phase organic synthesis  
 AU Guo, Mao-Jun; Varady, Laszlo  
 CS Applications Development, ArQule Inc., Woburn, MA, 01801, USA  
 SO Tetrahedron Letters (2002), 43(20), 3677-3680  
 CODEN: TELEAY; ISSN: 0040-4039  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 OS CASREACT 137:294931  
 AB 2-(3-Aminopropyl)-4-pentenoic acid lithium salt was prepd. and used as a  
 biocompatible, cleavable linker in solid-phase org. synthesis. The  
 products were released from solid support through cycloelimination.  
 IT **467451-29-2P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (2-(3-aminopropyl)-4-pentenoic acid as a biocompatible cleavable linker  
 for solid-phase org. synthesis)  
 RN 467451-29-2 CAPLUS  
 CN Piperazine, 1-[4-[[[(3'R,2'S,4'S,5'R)-4'-(3-benzofuranyl)-5'-(2-  
 fluorophenyl)-1,2-dihydro-1-methyl-2-oxospiro[3H-indole-3,2'-pyrrolidin]-  
 3'-yl]carbonyl]benzoyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RE.CNT 10      THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 1996:462227 CAPLUS  
 DN 125:115150  
 TI Cyclic hexapeptides having antibiotic activity  
 IN Ohki, Hidenori; Tomishima, Masaki; Yamada, Akira; Takasugi, Hisashi  
 PA Fujisawa Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 273 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

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	AU 9535780	A1	19960502	AU 1995-35780	19950929
	AU 696949	B2	19980924		
	EP 788511	A1	19970813	EP 1995-932935	19950929
	EP 788511	B1	20021211		
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	CN 1168675	A	19971224	CN 1995-196643	19950929
	JP 10507174	T2	19980714	JP 1995-512472	19950929
	JP 2897427	B2	19990531		
	HU 77736	A2	19980728	HU 1998-338	19950929
	JP 10324695	A2	19981208	JP 1998-136756	19950929
	RU 2165423	C2	20010420	RU 1997-107338	19950929
	AT 229541	E	20021215	AT 1995-932935	19950929
	IL 115484	A1	20000716	IL 1995-115484	19951002
	ZA 9508458	A	19960507	ZA 1995-8458	19951006
	BR 9504791	A	19961022	BR 1995-4791	19951006
	FI 9701397	A	19970527	FI 1997-1397	19970404
	NO 9701544	A	19970604	NO 1997-1544	19970404
	US 6107458	A	20000822	US 1997-809723	19970521
	US 6265536	B1	20010724	US 1999-248267	19990211
PRAI	GB 1994-20425	A	19941007		
	GB 1995-8745	A	19950428		
	JP 1996-512472	A3	19950929		
	WO 1995-JP1983	W	19950929		
	US 1997-809723	A3	19970521		
OS	MARPAT 125:115150				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to new cyclic polypeptide derivs. I [R1 = variety of substituted acyl groups] and their pharmaceutically acceptable salts. The compds. have antimicrobial activities (esp., antifungal activities) and inhibitory activity on .beta.-1,3-glucan synthase (no data), and are useful for prophylactic and/or therapeutic treatment of infectious diseases including Pneumocystis carinii infection (e.g., P. carinii pneumonia). Examples include 124 compds. I, plus 346 precursor preps. For instance, reaction of the precursor I.Na [R1 = H] with 1-[6-[(octyloxy)methyl]picolinoyl]benzotriazole 3-oxide in DMF in the presence of DMAP gave title compd. I [R1 = Q1]. In a test against Candida albicans FP-633 in vitro, I [R1 = Q2] had MIC of 0.2 .mu.g/mL.

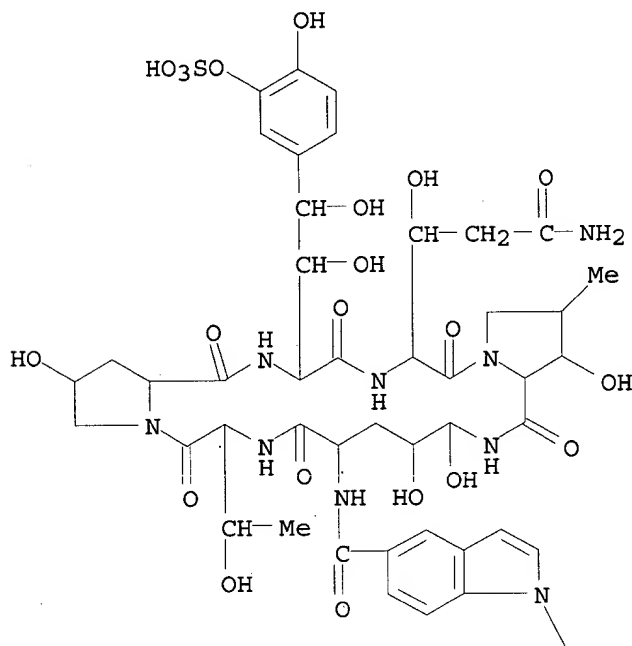
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study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of cyclic hexapeptides active against fungi and *Pneumocystis*  
*carinii*)

RN 179166-59-7 CAPLUS

CN Proline, N2-[(1-decyl-1H-indol-5-yl)carbonyl]-4,5-  
 dihydroxyornithylthreonyl-4-hydroxyprolyl-4-hydroxy-4-[4-hydroxy-3-  
 (sulfooxy)phenyl]threonyl-3-hydroxyglutaminyl-3-hydroxy-4-methyl-, cyclic  
 (6.fwdarw.1)-peptide, monosodium salt (9CI) (CA INDEX NAME)

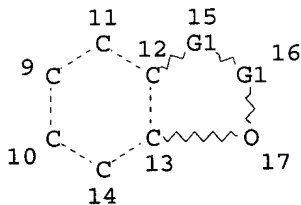
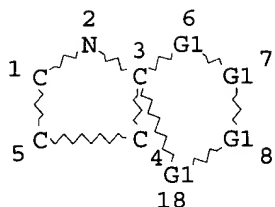
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PAGE 2-A

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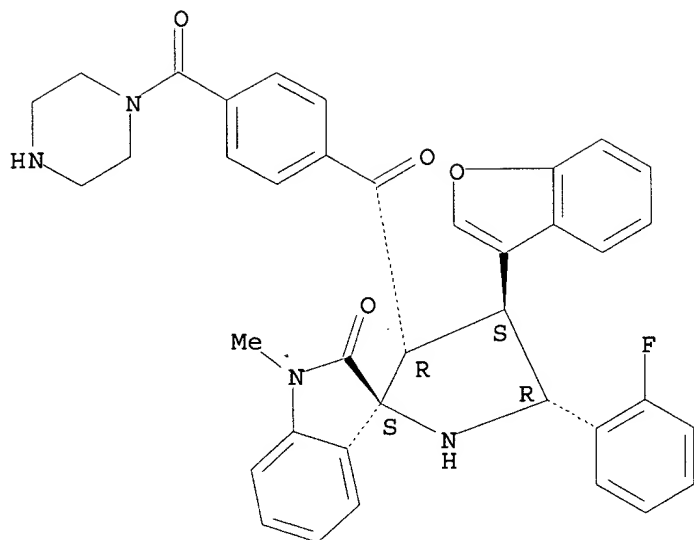
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L40 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
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 FS STEREOSEARCH  
 MF C38 H33 F N4 O4  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER

Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
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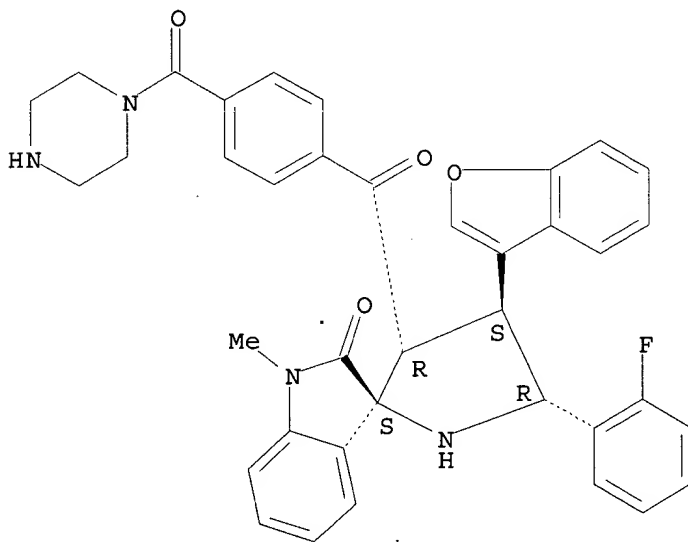
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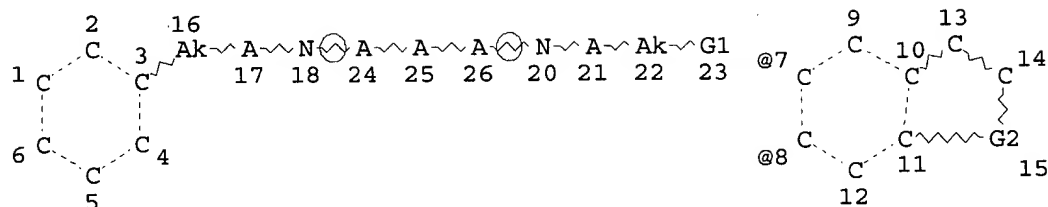
DN 137:294931  
 TI 2-(3-Aminopropyl)-4-pentenoic acid as a bio-compatible/cleavable linker  
 for solid-phase organic synthesis  
 AU Guo, Mao-Jun; Varady, Laszlo  
 CS Applications Development, ArQule Inc., Woburn, MA, 01801, USA  
 SO Tetrahedron Letters (2002), 43(20), 3677-3680  
 CODEN: TELEAY; ISSN: 0040-4039  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 OS CASREACT 137:294931  
 AB 2-(3-Aminopropyl)-4-pentenoic acid lithium salt was prepd. and used as a  
 biocompatible, cleavable linker in solid-phase org. synthesis. The  
 products were released from solid support through cycloelimination.  
 IT 467451-29-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (2-(3-aminopropyl)-4-pentenoic acid as a biocompatible cleavable linker  
 for solid-phase org. synthesis)  
 RN 467451-29-2 CAPLUS  
 CN Piperazine, 1-[4-[[[(3'R,2'S,4'S,5'R)-4'-(3-benzofuranyl)-5'-(2-  
 fluorophenyl)-1,2-dihydro-1-methyl-2-oxospiro[3H-indole-3,2'-pyrrolidin]-  
 3'-yl]carbonyl]benzoyl]-, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RE.CNT 10      THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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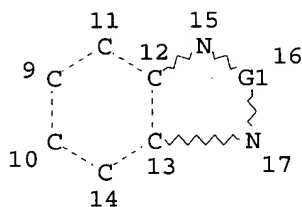
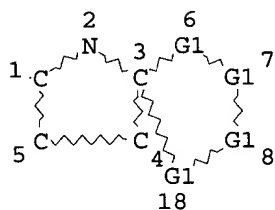
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 FULL SCREEN SEARCH COMPLETED - 88789 TO ITERATE

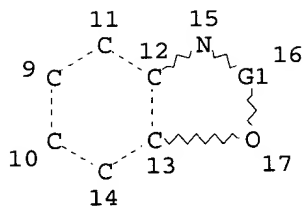
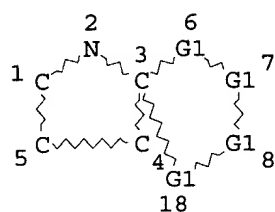
100.0% PROCESSED 88789 ITERATIONS  
 SEARCH TIME: 00.00.02

0 ANSWERS

L35 0 SEA SSS FUL L33



L36 HAS NO ANSWERS  
L36 STR



VAR G1=C/N  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC 10  
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

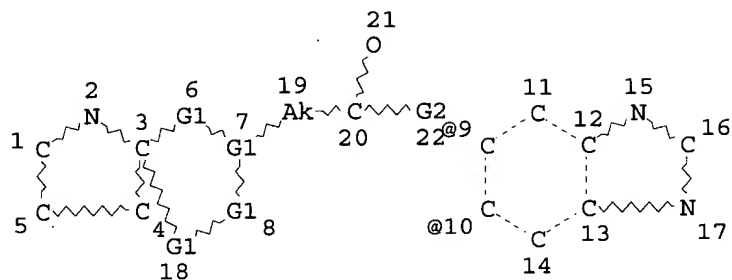
=> s l36 ful  
FULL SEARCH INITIATED 10:36:28 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 13477 TO ITERATE

100.0% PROCESSED 13477 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

L37 0 SEA SSS FUL L36

L19 HAS NO ANSWERS  
L19 STR



VAR G1=C/N  
VAR G2=9/10  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC 10  
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

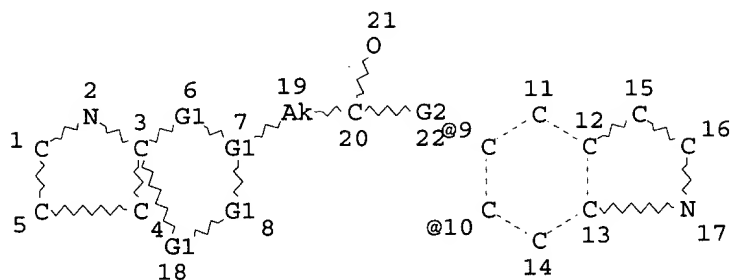
=> s l19 ful  
FULL SEARCH INITIATED 10:31:16 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 37479 TO ITERATE

100.0% PROCESSED 37479 ITERATIONS  
SEARCH TIME: 00.00.03

0 ANSWERS

L21 0 SEA SSS FUL L19

L17 HAS NO ANSWERS  
L17 STR



VAR G1=C/N  
VAR G2=9/10  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC 10  
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

=> s l17 ful  
FULL SEARCH INITIATED 10:31:33 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 501865 TO ITERATE

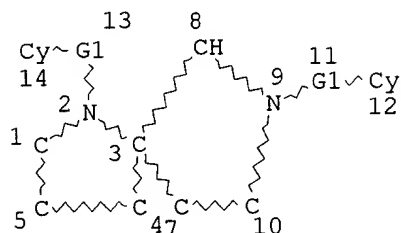
79.7% PROCESSED 400000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.17

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 501865 TO 501865  
PROJECTED ANSWERS: 0 TO 0

L22 0 SEA SSS FUL L17

=> d l1  
 L1 HAS NO ANSWERS  
 L1 STR



REP G1=(1-10) A  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS UNS AT 12  
 GGCAT IS UNS AT 14  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC 3  
 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

=> s l1 ful  
 FULL SEARCH INITIATED 10:58:37 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 2225 TO ITERATE

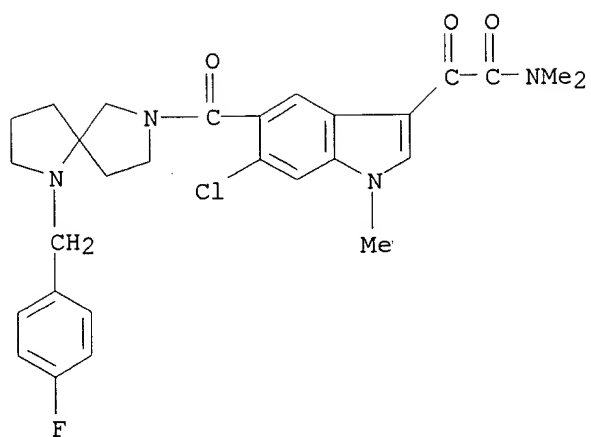
100.0% PROCESSED 2225 ITERATIONS  
 SEARCH TIME: 00.00.01

1 ANSWERS

L3 1 SEA SSS FUL L1

=> d

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 433286-59-0 REGISTRY  
 CN 1H-Indole-3-acetamide, 6-chloro-5-[[1-[(4-fluorophenyl)methyl]-1,7-diazaspiro[4.4]non-7-yl]carbonyl]-N,N,1-trimethyl-1H-indol-3-yl (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C28 H30 Cl F N4 O3  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

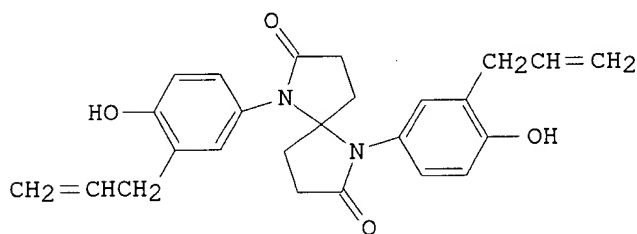


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

AN 1990:236007 CAPLUS  
 DN 112:236007  
 TI Alkenylhydroxyphenyl derivatives of 1,6-diazaspiro[4.4]dilactams  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 5 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4886863	A	19891212	US 1989-314520	19890223 <--
	US 4968811	A	19901106	US 1989-356157	19890524 <--
	EP 384518	A1	19900829	EP 1990-200323	19900212 <--
	EP 384518	B1	19940824		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	CA 2010537	AA	19900823	CA 1990-2010537	19900221 <--
	JP 02275881	A2	19901109	JP 1990-38566	19900221 <--
PRAI	US 1989-314512		19890223		
	US 1989-314518		19890223		
	US 1989-314519		19890223		
	US 1989-314520		19890223		
OS	CASREACT 112:236007; MARPAT 112:236007				
GI					



II

AB The title compds., useful in the prodn. of cured resins, are prepd. Heating 202.8 g 1,6-bis(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione (I), 91.22 g K2CO3, 200 mL PhMe, and 1 L AcNMe2 at 150-160.degree. with distn. of H2O, cooling to 90.degree., adding 200.2 g allyl bromide in 200 mL AcNMe2 over 80 min, and heating 12 h at 90.degree. gave I diallyl ether, heating of which in N-methylpyrrolidone at 200-205.degree. for 12 h gave >90% dilactam II. Heating a 1:1 mixt. of II and N,N'-(methylene-di-p-phenylene)bismaleimide gave a tough, crosslinked resin.

L8 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:199311 CAPLUS  
 DN 112:199311  
 TI Preparation and polymerization of unsaturated spirodilactams  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 6 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4885351	A	19891205	US 1989-314512	19890223 <--
	US 4940801	A	19900710	US 1989-356158	19890524 <--
	EP 384518	A1	19900829	EP 1990-200323	19900212 <--
	EP 384518	B1	19940824		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	CA 2010537	AA	19900823	CA 1990-2010537	19900221 <--
	JP 02275881	A2	19901109	JP 1990-38566	19900221 <--
PRAI	US 1989-314512		19890223		
	US 1989-314518		19890223		
	US 1989-314519		19890223		
	US 1989-314520		19890223		

OS MARPAT 112:199311

AB **1,6-Diaza[4.4]spirodilactams** bearing unsatd. groups on each spiro ring N atom give cured products when heated with curing agents at >150.degree.. Heating 150 g 4-oxoheptanedioic acid, 100 g allylamine, 200 mL AcNMe<sub>2</sub>, and 50 mL PhMe at 140-160.degree. with azeotropic distn. of H<sub>2</sub>O gave 200.8 g N, N'-diallyl-**1,6-diazaspiro[4.4]nonane-2,7-dione** (I). Heating 50 parts I and 50 parts N,N'-(methylenedi-p-phenylene)bismaleimide at 200.degree. for 4 h and 220.degree. for 2 h gave a crosslinked product with glass temp. 237.degree..

=> d bib abs 1-30

L8 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1993:103587 CAPLUS  
DN 118:103587  
TI Sulfamoyl-substituted spirodilactams  
IN Wang, Pen Chung  
PA Shell Oil Co., USA  
SO U.S., 7 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5149823	A	19920922	US 1990-564528	19900809 <--
PRAI	US 1990-564528		19900809		

OS MARPAT 118:103587

AB Sulfamoyl(alkyl)aryl-substituted **1,6-diazaspiro[4.4]nonane-2,7-diones** are prepd. by reaction, e.g., sulfanilamide and **1,6-dioxaspiro[4.4]nonane-2,7-dione** at 2:1 molar ratio in N-methyl-2-pyrrolidinone at 170-180.degree. to give the corresponding spirodilactam (I). Thus, I was polymd. with terephthalic acid in diglyme in presence of Sn oxide to give the condensation polymer. Alternatively bisphenol A diglycidyl ether and I were melted and then heated to 200-220.degree. to give a hard cured resin.

L8 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1992:427384 CAPLUS  
DN 117:27384  
TI Spirodilactam derivatives  
IN Wang, Pen Chung  
PA Shell Oil Co., USA  
SO U.S., 5 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5093499	A	19920303	US 1990-506394	19900409 <--
PRAI	US 1990-506394		19900409		

OS MARPAT 117:27384

AB The title derivs. with good hydrolytic and oxidative stability and useful as intermediates for polymers are prepd. from a dioxaspirodilactone, e.g. **1,6-dioxaspiro[4.4]nonane-2,7-dione** (I) or a suitable ketodicarboxylic acid, e.g. 4-oxoheptanedioic acid, and amine compds. Thus, stirring 0.32 mol phenoxylaniline with 0.16 mol I in 50 mL m-cresol at 160-170.degree. for 24 h gave **1,6-bis(4-phenoxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione** having m.p. of 210-212.degree..

L8 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1992:408732 CAPLUS  
DN 117:8732  
TI Cyclic polycarbonate oligomer containing spiro dilactam moieties  
IN Wang, Pen Chung  
PA Shell Oil Co., USA  
SO U.S., 8 pp.  
CODEN: USXXAM



DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 5095088	A	19920310	US 1990-566195	19900813 <--
PRAI	US 1990-566195		19900813		

AB The title oligomers, useful as intermediates for prepn. of linear, solvent-resistant polymers, are prepd. from dihydroxyaryl spirodilactam compds., carbonate sources and, optionally, dihydroxyphenyl compds. Thus, an oligomer was prepd. from bisphenol A, bisphenol A dichloroformate, and 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione in CHCl<sub>3</sub> in the presence of NaOH and Et<sub>3</sub>N.

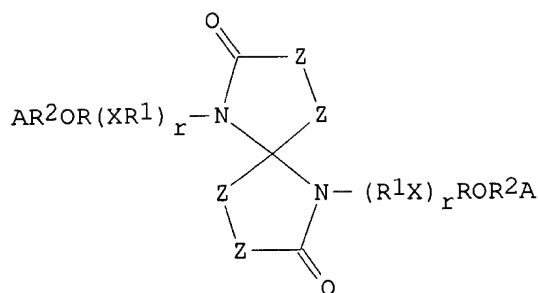
L8 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1991:584203 CAPLUS  
DN 115:184203  
TI Polycarbonates having spirodilactam moieties  
IN Wang, Pen Chung  
PA Shell Oil Co., USA  
SO U.S., 5 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 5030707	A	19910709	US 1989-411775	19890925 <--
PRAI	US 1989-411775		19890925		

AB The polycarbonates contain alternating 1,6-diaza[4.4]spirodilactam groups and bisphenol residues, and have good hydrolytic stability. A soln. of 3.52 g bisphenol A bis(chloroformate) in 75 mL CHCl<sub>3</sub> was added over 30 min to a stirred soln. of 3.38 g 1,6-bis(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione and 1.0 g NaOH in 75 mL H<sub>2</sub>O, mixed with 0.2 mL Et<sub>3</sub>N, and stirred 12 h at 25.degree., giving a white polymer with glass temp. 143.degree..

L8 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1991:248046 CAPLUS  
DN 114:248046  
TI Arylcyclobutene ethers for thermosetting resins  
IN Wang, Pen C.  
PA Shell Oil Co., USA  
SO U.S., 6 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 4968810	A	19901106	US 1989-324872	19890317 <--
	US 5059674	A	19911022	US 1990-506037	19900409 <--
PRAI	US 1989-324872		19890317		
OS	MARPAT 114:248046				
GI					



AB Hydroxyaryl-substituted spirodilactams I [A = C.1toreq.30 arylenecyclobutene ring system having .ltoreq.4 arom. rings; R = C.1toreq.15 arom. divalent ring system; R1 = R; R2 = C.1toreq.10 alkylene; X = direct bond, C.1toreq.8 alkylene, oxy, thio, sulfonyl, carbonyl, dioxyphenyl, 2,2-di(oxyphenyl)propane, di(oxyphenyl) sulfone, dioxydiphenylene; Z = CZ12; Z1 = H, lower alkyl, halogen, Ph; r = 0, 1] are prepd., which, when heated, produce resins having relatively high glass transition temp. and good phys. properties. Thus, 16.92 g of 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione, 7.6 g K2CO3, 50 mL toluene, and 200 mL AcNMe2 were heated to 150-160.degree., cooled to 80-90.degree., 16.77 g chloromethylbenzocyclobutene in 50 mL AcNMe2 added over 30 min, the mixt. heated to 150.degree. for 12 h, producing 1,6-bis[4-(4-benzocyclobutenemethyloxy)phenyl]-1,6-diazaspiro[4.4]nonane-2,7-dione, which was heated at 200.degree. for 2 h and at 220.degree. for 4 h, producing a polymer having glass-transition temp. 267.degree..

L8 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1991:248037 CAPLUS  
 DN 114:248037  
 TI Preparation of polyarylate polymers of hydroxyaryl-substituted 1,6-diaza (4.4) spirodilactams  
 IN Wang, Pen Chung  
 PA Shell Oil Co., USA  
 SO U.S., 8 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4992526	A	19910212	US 1989-454245	19891221 <--
PRAI	US 1989-454245		19891221		

AB The high-mol.-wt. polyesters are prepd. by interfacial polymn. of hydroxylaryl-substituted 1,6-diaza[4,4]spirodilactam compds. and arom. diacid halides, optionally with di(hydroxyphenyl) compds. in mixts. of aq. caustic solns., water-immisible org. solvents, and deemulsifying agents. Thus, stirring 1,6-di(hydroxyphenyl)-1,6-diazaspiro[4,4]nonane-2,7-dione 8.11, bisphenol A 8.22, (PhCH2)N+Et3Cl- 0.4, NaHSO3 0.04, and NaOH 5.28 g in a mixt. of iso-PrOH 50, CHCl3 420, and H2O 270 mL at <10.degree. and 1000 rpm under N, adding a soln. of 12.18 g isophthaloyl chloride in 70 mL CHCl3 over 30 min, and stirring for 12 h gave a polymer having glass-transition temp. 233.degree., and inherent viscosity 0.81 dL/g.

L8 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1991:248032 CAPLUS

DN 114:248032  
TI Thermoplastic polyarylates with high glass transition temperature  
IN Wang, Pen Chung  
PA Shell Oil Co., USA  
SO U.S., 7 pp. Cont.-in-part of U.S. 4,910,285.  
CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4977235	A	19901211	US 1989-454727	19891221 <--
	US 4910285	A	19900320	US 1989-314515	19890223 <--
PRAI	US 1989-314515		19890223		

AB The melt-processable polyarylates useful for shaped articles are derived from an arom. diacid halide, a hydroxyaryl-substituted spirodilactam compd. and, optionally a bisphenol compd. Stirring under N at <10.degree. a mixt. of 1,6-di(hydroxyphenyl)-1,6-**diazaspiro[4.4]nonane-2,7**-dione 8.11, bisphenol A 8.22, Et3PhCH2N+Cl- 0.4, NaHSO3 0.04, and NaOH 5.28 g in H2O 270, CHCl3 420, and iso-PrOH 50 mL, adding 12.18 g isophthaloyl chloride in 70 mL CHCl3 over 30 min, and stirring at room temp. for 12 h gave a polymer with glass temp. 233.degree. and inherent viscosity 0.8 dL/g.

L8 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:229666 CAPLUS

DN 114:229666

TI Aromatic polyethers containing spirodilactam groups and arylene groups bearing electron-withdrawing substituents

IN Wang, Pen Chung

PA Shell Oil Co., USA

SO U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 314,516, abandoned.  
CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4968769	A	19901106	US 1989-428563	19891030 <--
PRAI	US 1989-314516		19890223		

AB The title thermoplastic polymers have high glass temp. and good dimensional stability, and are useful as containers for food and drink and in elec. applications. A mixt. of 1,6-di(4-hydroxyphenyl)-**1,6-diazaspiro[4.4]nonane**-2,7-dione 16.9, 2,6-dichlorobenzonitrile 8.6, anhyd. K2CO3 7.0 g, 50 mL PhMe, and 100 mL N-methylpyrrolidone was heated to 160.degree. with azeotropic distn. of H2O, mixed with 0.135 g p-chlorobenzonitrile when the mixt. became viscous, then purified, giving 21.0 g white polymer with glass temp. 267.degree., tensile strength 14.600 psi, elongation 7%, and modulus 405,000 psi.

L8 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:164041 CAPLUS

DN 114:164041

TI Preparation of epoxyalkoxy-containing spirodilactams as monomers

IN Wang, Pen C.

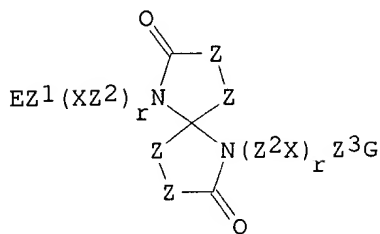
PA Shell Oil Co., USA

SO U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 172,054, abandoned.  
CODEN: USXXAM

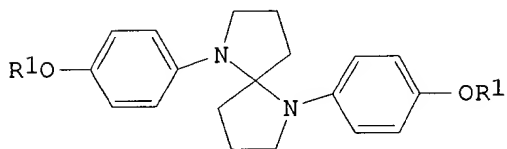
DT Patent  
LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4895942	A	19900123	US 1988-245434	19880916 <--
	CA 1335596	A1	19950516	CA 1989-608975	19890822 <--
	JP 02160787	A2	19900620	JP 1989-237400	19890914 <--
	EP 359341	A2	19900321	EP 1989-202341	19890915 <--
	EP 359341	A3	19910925		
	EP 359341	B1	19940216		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
PRAI	US 1988-172054		19880323		
	US 1988-245433		19880916		
	US 1988-245434		19880916		
	US 1988-245618		19880916		
	US 1988-245619		19880916		
	US 1988-249934		19880927		
	US 1989-324870		19890317		
OS	MARPAT 114:164041				
GI					



I



II

AB The title compds. [I; Z = CR<sub>2</sub>; R = H, alkyl; ZZ completing a 5- to 7-membered ring contg. .ltoreq.2 N, O, or S and the balance .ltoreq.15 C atoms, 2 of which connect a carbonyl C atom with the spiro C atom; Z1 = C.ltoreq.15 arom. group of .ltoreq.2 arom. rings; Z2, Z3 = Z1, C.ltoreq.10 aliph. group; r = 0, 1; X = a direct balance bond, C.ltoreq.8 alkylene, O, S, SO<sub>2</sub>, CO, dioxyphenylene, 2,2-di(oxyphenyl)propane, dioxydiphenylene; E = C.ltoreq.8 [1-(2,3-epoxy)alkoxy]; G = H, E; provided that when G = E, Z3 = Z] were prepd. Thus, a mixt. of 0.03 mol 1,6-diazaspiro[4.4]nonane-1,7-dione (II; R1 = H) and 0.05 g EtPh<sub>3</sub>P+Br<sup>-</sup> in 150 mL epichlorohydrin was stirred 4 h at 110-120.degree. to give 95% II (R1 = glycidyl).

L8 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:101726 CAPLUS

DN 114:101726

TI Preparation of spirodilactam derivatives as monomers, ultraviolet stabilizers, and plasticizers

IN Wang, Pen Chung

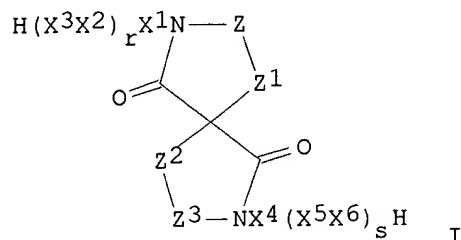
PA Shell Oil Co., USA

SO U.S., 3 pp.

CODEN: USXXAM

DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4963691	A	19901016	US 1989-392312	19890811 <--
PRAI	US 1989-392312		19890811		
OS	MARPAT 114:101726				
GI					



AB The title compds. (I; Z - Z3 = CR1R2; R1, R2 = H, alkyl, halo, Ph; X5, X6 = phenylene; X2, X5 = bond, alkylene, O, S, SO2, dioxyphenylene, etc.; r, s = 0, 1), useful as monomers, UV stabilizers, and plasticizers, were prepd. Thus, a mixt. of 3,8-dibutyl-2,7-dioxospiro[4.4]nonane-1,6-dione, aniline, and aniline hydrochloride was refluxed 6 h to give 86% 3,8-dibutyl-2,7-diphenyl-2,7-diazaspiro[4.4]nonane-1,6-dione.

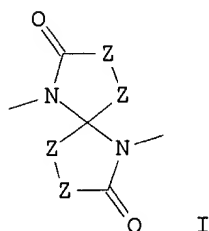
L8 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1991:82794 CAPLUS  
DN 114:82794  
TI Spirodilactam group-containing polycarbonate-polyesters  
IN Wang, Pen Chung  
PA Shell Oil Co., USA  
SO U.S., 6 pp.

CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4968768	A	19901106	US 1989-411774	19890925 <--
PRAI	US 1989-411774		19890925		
GI					



AB The title heat-stable polymers contain groups I [ $Z = C(Z_1)_2$ ;  $Z_1 = H$ , lower alkyl, lower halo, Ph, or two Z groups give a 5-7 atom ring contg. up to two N, O or S atoms). A soln. of isophthaloyl chloride 1.1, and 2,2-di(4-chlorocarbonyloxyphenyl)propane 1.76 g in 95 mL  $CHCl_3$  was added over 30 min to a stirred mixt. of 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione 3-38 g, NaOH 1.0 g, and  $H_2O$  75 mL, stirred 5 min, mixed with 0.2 mL  $NEt_3$ , and reacted 12 h at 25.degree., giving a polymer with limiting viscosity (room temp., in  $CHCl_3$ ) 0.31 dL/g.

L8 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:81805 CAPLUS

DN 114:81805

TI Preparation of 1,6-diaza[4.4]spirodilactams for thermosetting plastics

IN Wang, Pen Chung

PA Shell Internationale Research Maatschappij B. V., Neth.

SO Eur. Pat. Appl., 6 pp.

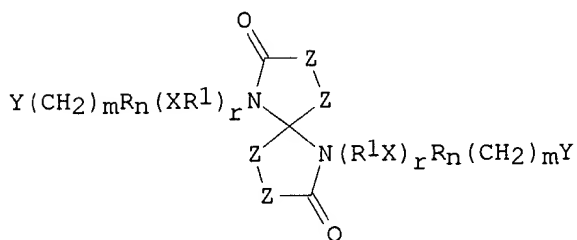
CODEN: EPXXDW

DT Patent

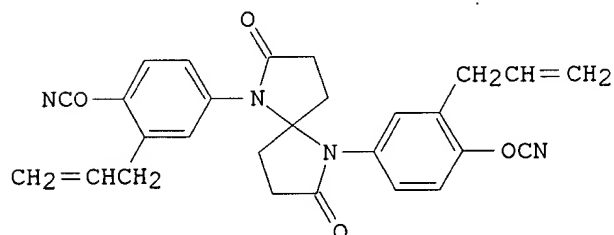
LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 384518	A1	19900829	EP 1990-200323	19900212 <--
	EP 384518	B1	19940824		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	US 4885351	A	19891205	US 1989-314512	19890223 <--
	US 4886863	A	19891212	US 1989-314520	19890223 <--
	US 4927908	A	19900522	US 1989-314519	19890223 <--
	US 4981976	A	19910101	US 1989-314518	19890223 <--
	US 5082923	A	19920121	US 1990-524528	19900517 <--
PRAI	US 1989-314512		19890223		
	US 1989-314518		19890223		
	US 1989-314519		19890223		
	US 1989-314520		19890223		
OS	MARPAT 114:81805				
GI					



I



II

AB The title compds. I [R = phenylene, hydroxyphenylene, cyanophenylene; R1 = R, C<10 alkyl, X = bond, C<5 alkylene, O, S, SO2, CO, etc.; Y = H2C:CH, HC.tplbond.C, Z = (Z4)2C:, Z1 = H, alkyl, halo, Ph, etc.; m, n, r = 0, 1] were prepd. as monomers for thermosetting plastics. 1  
 ,6-Di(4-hydroxyphenyl)-1,6-diazaspiro[4.  
 4]nonane-2,7-dione, K2CO3, MePh and MeCONMe2  
 were heated to 150-160.degree., H2O was removed by azeotropic distn. with MePh, the temp. lowered to 80-90.degree., H2C:CHCH2Br in MeCONMe2 was added over 80 min and the reaction continued for 12 h at 90.degree.. The resulting diallylether analog underwent Claisen rearrangement by heating for 12 h at 200-205.degree. in N-methyl-2-pyrrolidone followed by cyanation by BrCN at 0.degree. in the presence of Et3N to give II. A mixt. of equal parts of II and di(4-maleimidodiphenyl)methane was melted at 130-150.degree. and cured at 200.degree. for 2 h and at 220.degree. for 6 to give a hard, insol. crosslinked resin having a glass transition temp. >300.degree..

L8 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1991:63443 CAPLUS  
 DN 114:63443  
 TI 1,6-Diazaspiro[4.4]nonane  
 -2,7-dione derivatives for heat-resistant polyhydroxyethers  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 5 pp. Cont.-in-part of U.S. Ser. No. 175,023, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4888408	A	19891219	US 1988-249934	19880927 <--
	CA 1335596	A1	19950516	CA 1989-608975	19890822 <--
	JP 02160787	A2	19900620	JP 1989-237400	19890914 <--
	EP 359341	A2	19900321	EP 1989-202341	19890915 <--
	EP 359341	A3	19910925		
	EP 359341	B1	19940216		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
PRAI	US 1988-175023		19880330		
	US 1988-245433		19880916		
	US 1988-245434		19880916		
	US 1988-245618		19880916		
	US 1988-245619		19880916		
	US 1988-249934		19880927		
	US 1989-324870		19890317		

AB The title polyhydroxyethers, contg. (A) 1,6-diaza[4.4]spirodilactam having oxyaryl-contg. substituents on each N and (B) 2-hydroxy-1,3-propylene groups, have relatively high glass transition temp. Refluxing a 1:1 (mol) mixt. of 1,6-di(4-glycidyloxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione and 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione in EtPPh3.Br and heating for 6 h at 200.degree. gave a polyether with glass temp. 167.degree. C.

L8 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1991:62952 CAPLUS  
 DN 114:62952  
 TI Preparation of spiro lactams  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA

SO U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 172,000.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4939251	A	19900703	US 1988-245618	19880916 <--
	CA 1335596	A1	19950516	CA 1989-608975	19890822 <--
	JP 02160787	A2	19900620	JP 1989-237400	19890914 <--
	EP 359341	A2	19900321	EP 1989-202341	19890915 <--
	EP 359341	A3	19910925		
	EP 359341	B1	19940216		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	US 5053518	A	19911001	US 1990-524412	19900516 <--
PRAI	US 1988-172000		19880323		
	US 1988-172052		19880323		
	US 1988-245433		19880916		
	US 1988-245434		19880916		
	US 1988-245618		19880916		
	US 1988-245619		19880916		
	US 1988-249934		19880927		
	US 1989-324870		19890317		

OS MARPAT 114:62952

AB [4.4]Spirodilactams (ring N atoms in 1,6-positions; either or both N atoms substituted with hydroxy-contg. C<30 groups) or [4.4]spiro lactam-lactones (N atoms substituted with hydroxy-contg. C<30 group) are prepd. by reaction of 4-oxoheptanedioic acid or 1,6-dioxaspiro[4.4]nonane-2,7-dione (I) with H<sub>2</sub>NRX(R)OH (R = C<10 aliph. or arom.; X = direct bond, C<8 alkylene, O, S, SO<sub>2</sub>, CO, dioxypheylene, 2,2-di(oxyphenyl)propane, or dioxydiphenylene). The compds. are useful, e.g., as curing agents for epoxy resins. Reaction of I 25 with p-aminophenol 34.9 g in 100 mL AcNMe<sub>2</sub> at 150.degree. with reflaxing for 12 h gave 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonene-2,7-dione (m.p. 320.degree.).

L8 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1991:7456 CAPLUS

DN 114:7456

TI Polymers containing alternating spiro lactam and carbonyl moieties

IN Wang, Pen Chung

PA Shell Internationale Research Maatschappij B. V., Neth.

SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DT Patent

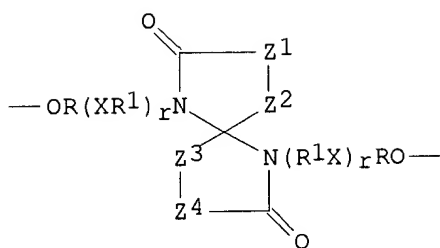
LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 372656	A2	19900613	EP 1989-203087	19891205 <--
	EP 372656	A3	19920108		
	EP 372656	B1	19950607		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	US 4906725	A	19900306	US 1988-279671	19881205 <--
	US 4910285	A	19900320	US 1989-314515	19890223 <--
	US 5049640	A	19910917	US 1989-314514	19890223 <--
PRAI	US 1988-279671		19881205		
	US 1989-314514		19890223		
	US 1989-314515		19890223		
	US 1989-314516		19890223		

GI





I

AB Linear copolymers with high glass temps. contain spiro lactam units I [R = divalent C.ltoreq.15 arom. and .ltoreq.2 arom. rings; R1 = R or divalent C.ltoreq.10 aliph; r = 0 or 1; X = direct bond C.ltoreq.8 alkylene, O, S, SO2, CO, dioxyphenylene, 2,2-bis(oxyphenyl)propane, bis(oxyphenyl)sulfone, dioxydiphenylene; Z1-4 = CZ52, Z5 = H, C1-4 alkyl, or halo or such that of adjacent Z atoms together are part of a benzene ring] alternating with carbonyl, phenylenedicarbonyl, carbonyldiphenylene, and cyanophenylene units. A mixt. of 33.8 g 1,6-bis(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione, 25.7 g (PhO)2CO, 0.02 g ZnO and 0.02 g Pb oxide was melted under N, and PhOH was distd. off at 180.degree./50 mm. After 0.5 h, the conditions were changed to 200.degree./15 mm, and after an addnl. 0.5 h, the pressure was reduced 2.3 mm. Heating further at 220.degree./2.3 mm for 0.5 h and 250.degree./2.3 mm for 2 h gave a hard polycarbonate with glass temp. 223.degree..

L8 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:613287 CAPLUS

DN 113:213287

TI 1,6-Diaza[4.4]-spirodilactam epoxyalkyl ether-containing thermosetting resin compositions

IN Wang, Pen C.

PA Shell Oil Co., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4933423	A	19900612	US 1989-334406	19890407 <--
	US 5001213	A	19910319	US 1990-474954	19900205 <--
PRAI	US 1989-334406		19890407		

AB Title improved glass transition temp. (Tg) compns. comprise an epoxyalkyl ether of 1,6-diaza[4.4]spirodilactam having hydroxyaryl-contg. substituent on each spiro ring N and a diamine compd. A compn., prepd. by heating a mixt. of 82% 1,6-di(4-glycidyoxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione (prepd. from 10.14 g 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione and 150 mL epichlorohydrin with 0.05 g ethyltriphenylphosphonium bromide) and 18% di(4-aminophenyl)methane at 150.degree. and 200.degree. 2-stage process, had Tg 185.degree..

L8 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:592729 CAPLUS

DN 113:192729

TI Thermosetting resin compositions comprising cyanatoarylspirodilactam

IN Wang, Pen C.  
PA Shell Oil Co., USA  
SO U.S., 6 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4927908	A	19900522	US 1989-314519	19890223 <--
	EP 384518	A1	19900829	EP 1990-200323	19900212 <--
	EP 384518	B1	19940824		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	CA 2010537	AA	19900823	CA 1990-2010537	19900221 <--
	JP 02275881	A2	19901109	JP 1990-38566	19900221 <--
PRAI	US 1989-314512		19890223		
	US 1989-314518		19890223		
	US 1989-314519		19890223		
	US 1989-314520		19890223		

AB The title compns. given thermosetting resins with high glass temps. comprise (a) a cyanatoaryl-substituted 1,6-diaza[4.4]spirodilactam having cyanatoaryl-contg. substituents on each spiro ring N atom and (b) .gtoreq.1 addnl. polymerizable monomer having 2 substituents with multiple bonds between adjacent atoms. Reaction of Na salt of 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione with allyl chloride, subjecting to Claisen rearrangement at 200.degree., and treating with excess cyanogen bromide and Et3N gave 1,6-di(4-cyanato-3-allylphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione, which was mixed with an equal portion of di(4-maleimidophenyl)methane, melted at 130-150.degree., heated at 200.degree. for 2 h and at 220.degree. for an addnl. 6 h giving a hard insol. resin with glass transition temp. >300.degree..

L8 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:592177 CAPLUS

DN 113:192177

TI 1,6-Diazaspiro[4,4]nonane  
-2,7-dione derivatives and their cured compositions

IN Wang, Pen Chung

PA Shell Internationale Research Maatschappij B. V., Neth.

SO Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DT Patent

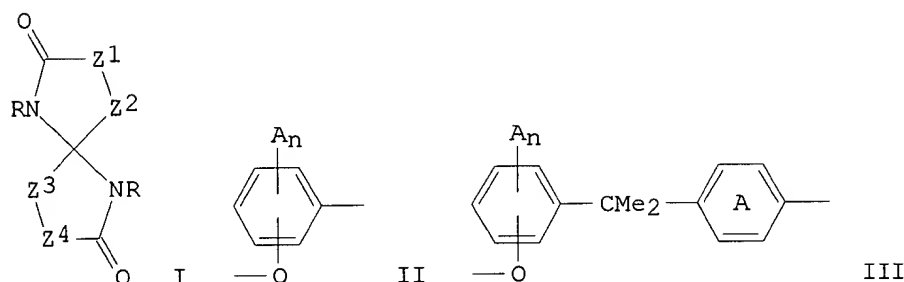
LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 359341	A2	19900321	EP 1989-202341	19890915 <--
	EP 359341	A3	19910925		
	EP 359341	B1	19940216		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	US 4847388	A	19890711	US 1988-245433	19880916 <--
	US 4889907	A	19891226	US 1988-245619	19880916 <--
	US 4895942	A	19900123	US 1988-245434	19880916 <--
	US 4939251	A	19900703	US 1988-245618	19880916 <--
	US 4888408	A	19891219	US 1988-249934	19880927 <--
PRAI	US 1988-245433		19880916		
	US 1988-245434		19880916		
	US 1988-245618		19880916		
	US 1988-245619		19880916		

US 1988-249934	19880927
US 1989-324870	19890317
US 1988-171998	19880323
US 1988-172000	19880323
US 1988-172052	19880323
US 1988-172054	19880323
US 1988-175023	19880330
US 1988-185574	19880425

GI



AB **1,6-Diazaspiro[4,4]nonane**

derivs. X[LY(MY)p]mLX in which L is I; Z1-Z4 are independently CZ52 in which Z5 is independently H or C1-4 alkyl, or 2 adjacent Z5 form part of a benzene ring; each R is independently II or III; A is C1-4 alkyl or halogen, n is 0, 1, or 2, and the free valence bond of the C in ring A is linked to a ring N of I; m .gtoreq.0; each X is independently H, glycidyl, acrylyl, methacrylyl, allyl, or propargyl; Y is 2-hydroxy-1,3-propanediyl; each M independently a divalent group for a dihydric arom. alc.; p is av. 0-3; when R is bivalent II and Z2 and Z3 are CH2 and Z1 and Z4 are independently H or C1-4 alkyl, then each X .noteq. glycidyl. Thus, 100 g 4-oxoheptanedioic acid, 260.7 g 2-(4-aminophenyl)-2-(4-hydroxyphenyl)propane, and 250 mL N-methyl-2-pyrrolidine (IV) were stirred at 160.degree. for 72 h, cooled, IV was removed, and MeOH was added to ppt. the product. NMR indicated a major amt. of 1,6-di[4-(4-hydroxyphenylisopropyl)phenyl]-

**1,6-diazaspiro[4,4]nonane**

(V), which was reacted with allyl bromide, then heated with an equal wt. of bis(4-maleimidophenyl)methane, at 170.degree. for 2 h, at 210.degree. for 2 h, and 250.degree. for 6 h to give a cured product (insol. in ammonia) having glass temp. 312.degree..

L8 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:533125 CAPLUS  
 DN 113:133125  
 TI Polyspirodilactamsulfone thermoplastics  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 6 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

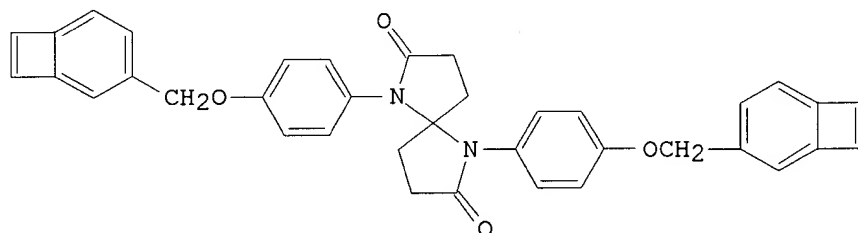
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4935489	A	19900619	US 1989-324871	19890317 <--
PRAI	US 1989-324871		19890317		

AB The title copolymers, which have relatively high glass transition temps. and which are processable without undue degrdn., comprise aryl sulfone

repeating units, 1,6-diazaspirodilactam oxyaryl repeating units, and, optionally, dioxyphenyl compd. repeating units. Thus, 16.9 g of 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione, 250 mL DMSO, 50 mL PhMe, and 4 g NaOH were heated to 130-140.degree., the water formed was removed by azeotropic distn. with PhMe, the mixt. heated to 150-155.degree. for 1 h, the mixt. cooled to 50-60.degree., 14.3 g di(4-chlorophenyl) sulfone added, the mixt. rapidly heated to 145.degree. for 6 h, heated to 160.degree. for 0.5 h, cooled, poured into 15 L H2O which had been acidified with 5.0 g oxalic acid, and filtered, producing a polyspirodilactamsulfone having glass transition temp. 225.degree..

L8 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:498700 CAPLUS  
 DN 113:98700  
 TI 1,6-Diaza[4.4]spirodilactam derivative-based thermosetting compositions  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 6 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4921931	A	19900501	US 1989-324866	19890317 <--
PRAI	US 1989-324866		19890317		
GI					



I

AB The title compns., giving cured resins with high glass temps. and good phys. properties, comprise an arylcyclobutenylalkyl ether of a 1,6-diaza[4.4]spirodilactam having a hydroxyaryl substituent on each spiro ring N atom and a monomer having .gtoreq.2 polymerizable groups. The reaction of 1,6-bis(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione with benzocyclobutenylmethyl chloride in AcNMe2 gave I which was mixed with an equal amt. of bis(4-maleimidophenyl)methane and heated 6 h at 200-220.degree. to give a crosslinked resin having glass temp. 276.degree..

L8 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:441552 CAPLUS  
 DN 113:41552  
 TI Polyarylate polymers  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 6 pp.  
 CODEN: USXXAM

DT Patent  
LA English  
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4910285	A	19900320	US 1989-314515	19890223 <--
	CA 2004474	AA	19900605	CA 1989-2004474	19891204 <--
	EP 372656	A2	19900613	EP 1989-203087	19891205 <--
	EP 372656	A3	19920108		
	EP 372656	B1	19950607		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	JP 02199121	A2	19900807	JP 1989-314503	19891205 <--
	ES 2072889	T3	19950801	ES 1989-203087	19891205 <--
	US 4977235	A	19901211	US 1989-454727	19891221 <--

PRAI US 1988-279671 19881205  
US 1989-314514 19890223  
US 1989-314515 19890223  
US 1989-314516 19890223

AB Polyesters with high glass transition temp. (Tg) and useful for manuf. of shaped articles comprise alternating moieties derived from an arom. dicarboxylic acid halide, from a hydroxyaryl-substituted **1,6-diaza[4.4]spirodilactam** and optionally, from a di(hydroxyphenyl) compd. Thus, stirring **1,6-di(hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7**-dione 10.14, Et<sub>3</sub>N+(CH<sub>2</sub>Ph) Cl- 0.2, NaHSO<sub>3</sub> 0.02, NaOH 2.64 g in 135 mL H<sub>2</sub>O and 70 mL CH<sub>2</sub>ClCHCl<sub>2</sub> (I) at 1200 rpm and <10.degree. under N, adding 6.1 g isophthaloyl chloride in 40 mL I over 30 min, and polymg. for 4 h gave a polymer having Tg 231.degree.. A cup manufd. from this polymer had good dimensional stability at elevated temp.

L8 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1990:425054 CAPLUS

DN 113:25054

TI Unsaturated derivatives of hydroxyaryl-substituted **1,6-**

**diazaspiro[4.4]nonane-2,7**

-diones and their manufacture

IN Wang, Pen C.

PA Shell Oil Co., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4847388	A	19890711	US 1988-245433	19880916 <--
	US 5013805	A	19910507	US 1989-357156	19890526 <--
	CA 1335596	A1	19950516	CA 1989-608975	19890822 <--
	JP 02160787	A2	19900620	JP 1989-237400	19890914 <--
	EP 359341	A2	19900321	EP 1989-202341	19890915 <--
	EP 359341	A3	19910925		
	EP 359341	B1	19940216		

R: BE, CH, DE, ES, FR, GB, IT, LI, NL  
PRAI US 1988-245433 19880916  
US 1988-245434 19880916  
US 1988-245618 19880916  
US 1988-245619 19880916  
US 1988-249934 19880927  
US 1989-324870 19890317

OS CASREACT 113:25054; MARPAT 113:25054

AB The title compds., giving insol. products with high glass-transition temp., useful for surface coatings, adhesive formulations, and

fiber-reinforced composites, are prepd. Thus, heating a mixt. of 1,6-bis(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione and K<sub>2</sub>CO<sub>3</sub> in DMF-PhCH<sub>3</sub> to 150-160.degree. with concurrent removal of water, adding propargyl bromide in DMF at 80-90.degree., and heating at 100.degree. for 12 h produced 1,6-bis[4-(propargyloxy)phenyl]-1,6-diazaspiro[4.4]nonane-2,7-dione, which after curing at 210.degree. for 12 h had glass temp. 305.degree..

L8 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:407036 CAPLUS  
 DN 113:7036  
 TI Polyhydroxypolyesters containing 1,6-diazaspiro[4.4]nonane-2,7-dione residues  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 185,574, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4889907	A	19891226	US 1988-245619	19880916 <--
	CA 1335596	A1	19950516	CA 1989-608975	19890822 <--
	JP 02160787	A2	19900620	JP 1989-237400	19890914 <--
	EP 359341	A2	19900321	EP 1989-202341	19890915 <--
	EP 359341	A3	19910925		
	EP 359341	B1	19940216		

R: BE, CH, DE, ES, FR, GB, IT, LI, NL

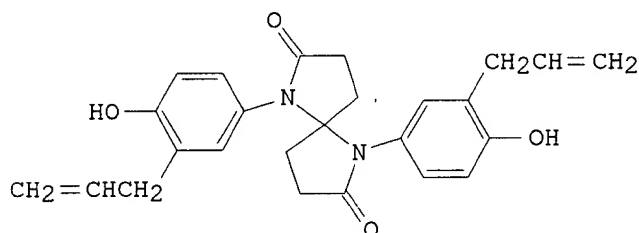
PRAI US 1988-171998 19880323  
 US 1988-172054 19880323  
 US 1988-185574 19880425  
 US 1988-245433 19880916  
 US 1988-245434 19880916  
 US 1988-245618 19880916  
 US 1988-245619 19880916  
 US 1988-249934 19880927  
 US 1989-324870 19890317

AB Polyhydroxypolyethers contg. residues of 2,2-di(hydroxyphenyl)propane and a 1,6-diazaspiro[4.4]spirodilactam having oxyaryl substituents on each spiro ring N atom, which residues are connected by 2-hydroxy-1,3-propylidene bridges, are prepd. These polymers have high glass transition temps. (>155.degree.) and have applications similar to those of phenolic resins, but are also useful in engineering applications (e.g., containers for food and drink which are exposed to elevated temps.) (no data). Thus, a mixt. of 2,2-di(4-glycidyloxyphenyl)propane 3.4, 1,6-di(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione 3.38, and Et(Ph)3PBr 0.1855 g was stirred and heated to 220.degree. for 6 h, producing a hard polymer having glass transition temp. 157.degree..

L8 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:236007 CAPLUS  
 DN 112:236007  
 TI Alkenylhydroxyphenyl derivatives of 1,6-diazaspiro[4.4]dilactams  
 IN Wang, Pen C.  
 PA Shell Oil Co., USA  
 SO U.S., 5 pp.  
 CODEN: USXXAM

DT Patent  
LA English  
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4886863	A	19891212	US 1989-314520	19890223 <--
	US 4968811	A	19901106	US 1989-356157	19890524 <--
	EP 384518	A1	19900829	EP 1990-200323	19900212 <--
	EP 384518	B1	19940824		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	CA 2010537	AA	19900823	CA 1990-2010537	19900221 <--
	JP 02275881	A2	19901109	JP 1990-38566	19900221 <--
PRAI	US 1989-314512		19890223		
	US 1989-314518		19890223		
	US 1989-314519		19890223		
	US 1989-314520		19890223		
OS	CASREACT 112:236007; MARPAT 112:236007				
GI					



II

AB The title compds., useful in the prodn. of cured resins, are prepd. Heating 202.8 g 1,6-bis(4-hydroxyphenyl)-1,6-diazaspiro[4.4]nonane-2,7-dione (I), 91.22 g K<sub>2</sub>CO<sub>3</sub>, 200 mL PhMe, and 1 L AcNMe<sub>2</sub> at 150-160.degree. with distn. of H<sub>2</sub>O, cooling to 90.degree., adding 200.2 g allyl bromide in 200 mL AcNMe<sub>2</sub> over 80 min, and heating 12 h at 90.degree. gave I diallyl ether, heating of which in N-methylpyrrolidone at 200-205.degree. for 12 h gave >90% dilactam II. Heating a 1:1 mixt. of II and N,N'-(methylene-di-p-phenylene)bismaleimide gave a tough, crosslinked resin.

L8 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1990:199311 CAPLUS  
DN 112:199311  
TI Preparation and polymerization of unsaturated spirodilactams  
IN Wang, Pen C.  
PA Shell Oil Co., USA  
SO U.S., 6 pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4885351	A	19891205	US 1989-314512	19890223 <--
	US 4940801	A	19900710	US 1989-356158	19890524 <--
	EP 384518	A1	19900829	EP 1990-200323	19900212 <--
	EP 384518	B1	19940824		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				

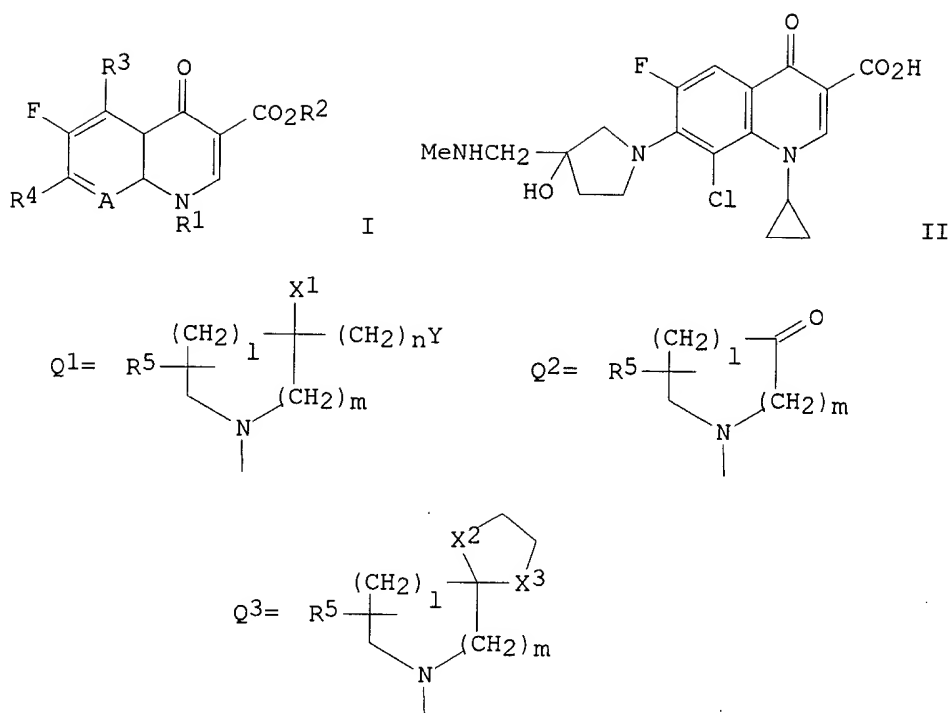
CA 2010537 AA 19900823 CA 1990-2010537 19900221 <--  
 JP 02275881 A2 19901109 JP 1990-38566 19900221 <--  
 PRAI US 1989-314512 19890223  
 US 1989-314518 19890223  
 US 1989-314519 19890223  
 US 1989-314520 19890223  
 OS MARPAT 112:199311  
 AB 1,6-Diaza[4.4]spirodilactams bearing unsatd. groups on each  
 spiro ring N atom give cured products when heated with curing agents at  
 >150.degree.. Heating 150 g 4-oxoheptanedioic acid, 100 g allylamine, 200  
 mL AcNMe2, and 50 mL PhMe at 140-160.degree. with azeotropic distn. of H2O  
 gave 200.8 g N, N'-diallyl-1,6-diazaspiro[4.  
 4]nonane-2,7-dione (I). Heating 50 parts I  
 and 50 parts N,N'-(methylenedi-p-phenylene)bismaleimide at 200.degree. for  
 4 h and 220.degree. for 2 h gave a crosslinked product with glass temp.  
 237.degree..

L8 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1990:77163 CAPLUS  
 DN 112:77163  
 TI Quinolone- and naphthyridone-carboxylic acid derivatives, method for their  
 preparation and antibacterial agents and food additives containing them  
 IN Petersen, Uwe; Schenke, Thomas; Grohe, Klaus; Schriewer, Michael; Haller,  
 Ingo; Metzger, Karl Georg; Endermann, Rainer; Zeiler, Hans Joachim  
 PA Bayer A.-G., Fed. Rep. Ger.  
 SO Eur. Pat. Appl., 42 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 326916	A2	19890809	EP 1989-101242	19890125 <--
	EP 326916	A3	19900516		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	DE 3814517	A1	19890817	DE 1988-3814517	19880429 <--
	JP 01226883	A2	19890911	JP 1989-19946	19890131 <--
	JP 2788043	B2	19980820		
	FI 8900503	A	19890806	FI 1989-503	19890202 <--
	FI 94524	B	19950615		
	FI 94524	C	19950925		
	HU 49343	A2	19890928	HU 1989-544	19890203 <--
	HU 209300	B	19940428		
	HU 55357	A2	19910528	HU 1990-6247	19890203 <--
	HU 207292	B	19930329		
	US 5173484	A	19921222	US 1991-699880	19910514 <--
	US 5284842	A	19940208	US 1992-931746	19920818 <--
	US 5453422	A	19950926	US 1993-151603	19931112 <--
PRAI	DE 1988-3803478		19880205		
	DE 1988-3814517		19880429		
	DE 1988-3802478		19880205		
	US 1989-298459		19890118		
	US 1991-699880		19910514		
	US 1992-931746		19920818		
OS	CASREACT 112:77163; MARPAT 112:77163				
GI					





AB The title compds. [I; R<sup>1</sup> = Me, Et, Pr, Me<sub>2</sub>CH, cyclopropyl, vinyl, HOCH<sub>2</sub>CH<sub>2</sub>, FCH<sub>2</sub>CH<sub>2</sub>, MeO, amino, Ph, 4-FC<sub>6</sub>H<sub>4</sub>, 2,4-F<sub>2</sub>C<sub>6</sub>H<sub>4</sub>; R<sup>2</sup> = H, C<sub>1</sub>-4 alkyl, 5-methyl-2-oxo-1,3-dioxol-4-ylmethyl; R<sup>3</sup> = H, amino; R<sup>4</sup> = Q<sub>1</sub>, Q<sub>2</sub>, Q<sub>3</sub>; R<sup>5</sup> = H, C<sub>1</sub>-3 alkyl, C<sub>3</sub>-6 cycloalkyl; R<sup>6</sup> = H, halo, Me, CN, NO<sub>2</sub>; A = N, CR<sub>6</sub>; X<sup>1</sup>, Y = H, amino, OH, alkoxy, acyloxy, etc.; X<sup>2</sup>, X<sup>3</sup> = O, S, NH, NMe; l = 0-2; m = 1, 2; n = 1], useful as antibacterials/feed additives, were prepd. Thus, a mixt. of 8-chloro-1-cyclopropyl-6,7-difluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid, 1,4-diazabicyclo[2.2.2]octane, and 3-hydroxy-3-(methylaminomethyl)pyridine hydrochloride were refluxed in MeCN/DMF for 1 h to give 7-aminoquinolone deriv. II. II inhibited *Staphylococcus aureus* with an MIC of 0.062 mg/L.

L8 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1961:90061 CAPLUS

DN 55:90061

OREF 55:16991a-c

TI Water-resistant greases

IN Potter, Ralph A.

PA Union Oil Co. of California

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2980612		19610418	US	<--

AB Non-soap greases are prepd. from mineral or synthetic ester lubricating oils, colloidal SiO<sub>2</sub> or Al<sub>2</sub>O<sub>3</sub> thickeners, and a polyoxyethylene deriv. of a sorbitan partial ester of a higher fatty acid (product of the reaction of ethylene oxide with an ester of sorbitol and C<sub>12</sub>-18 fatty acids). Colloidal SiO<sub>2</sub> 9, polyoxyethylene sorbitan tristearate 1, and a paraffinic lubricating oil (viscosity index 86, 52.5 Saybolt Universal sec. at 210.degree.F.) 90 parts by wt. were mixed with a spatula on a steel plate, heated to 320.degree.F. over a period of 10 min., and cooled with working. The product had an ASTM penetration of 260 at 77.degree.F. and showed no

breakdown or tendency to emulsify in a boiling-water test. Substitution of a synthetic-base oil (ester of sebacic acid and 2-ethylhexanol) gave a product with unworked penetration 270 at 77.degree.F. Greases with ASTM unworked penetrations of 240-65 at 77.degree.F. were similarly prepd. from the above mineral oil or other paraffinic mineral oils by substituting monooleate, monostearate, trioleate, and dilaurate esters for the tristearate.

L8 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1961:90060 CAPLUS  
 DN 55:90060  
 OREF 55:16991a  
 TI Lubricating grease  
 IN McCarthy, Paul R.; McGrath, Joseph J.  
 PA Gulf Research & Development Co.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	----	-----	-----	-----	
PI	US 2979462		19610411	US		<--
AB	A spiro II is used as the oil-thickening agent.					

L8 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1961:90059 CAPLUS  
 DN 55:90059  
 OREF 55:16991a  
 TI Lubricating grease  
 IN McGrath, Joseph J.; Pellegrini, John P., Jr.  
 PA Gulf Research & Development Co.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

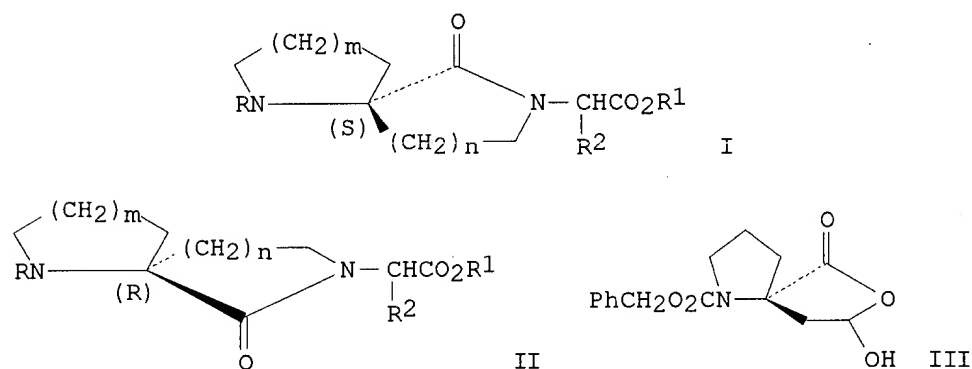
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	----	-----	-----	-----	
PI	US 2979461		19610411	US		<--
AB	A biphenyldicarboxylic acid is used in place of II.					

L8 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1961:90058 CAPLUS  
 DN 55:90058  
 OREF 55:16990h-i,16991a  
 TI Lubricating grease  
 IN McCarthy, Paul R.; McGrath, Joseph J.  
 PA Gulf Research & Development Co.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	----	-----	-----	-----	
PI	US 2979460		19610411	US		<--
AB	Lubricating oil is thickened by adding a secondary organophilic siliceous (I) material and a 5,5-disubstituted hydantoin (II), where the substituents are alkyl, aryl, alkaryl, aralkyl, or cycloalkyl radical, and at least 1 is a carbocyclic radical. The I may be a bentonite-org. base compd., such as the bentones and finely divided organosiliceous solids, such as the Estersils. The wt. ratio of II to I is about 1:1 to 20:1, with the total wt. being 10-60% of the grease compn.					

AN 1990:553050 CAPLUS  
 DN 113:153050  
 TI Preparation of spirolactam derivatives as intermediates for peptide agonists and antagonists of substance P  
 IN Ward, Peter; Ewan, George Blanch  
 PA Glaxo Group Ltd., UK  
 SO Eur. Pat. Appl., 26 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 360390	A1	19900328	EP 1989-307442	19890721
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 02124887	A2	19900514	JP 1989-190732	19890725
	US 5166136	A	19921124	US 1989-384685	19890725
PRAI	GB 1988-17711		19880725		
	GB 1989-5286		19890308		
OS	MARPAT 113:153050				
GI					



AB Title derivs. I and II [R = H or conventional N-protecting group; R1 = H or conventional CO2H-protecting or -activating group; R2 = sidechain of naturally occurring amino acid (may be R and/or S); m, n = 1, 2; addnl. provisos] are prepd. as intermediates for antagonists and agonists, resp., of substance P (no data). Thus, (2S)-2-propenylproline-HCl was prepd. and converted in 2 steps to spirocyclic hydroxy lactone III; reductive amination of III with leucine Me ester and NaBH3CN gave I [R = PhCH2O2C, R1 = Me, R2 = (S)-CH2CHMe2, m = n = 1]. The latter was converted via both liq.- and solid-phase techniques to the peptide analog H-Arg-Pro-Lys-Pro-Glu(NH2)-Glu(NH2)-Phe-Phe-X-Trp-NH2 [X = 4-methyl-1-oxo-2(S)-(6-oxo-5(S)-1,7-diazaspiro [4.4]nonan-7-yl)pentyl].

=> d hit

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

AB Title derivs. I and II [R = H or conventional N-protecting group; R1 = H or conventional CO2H-protecting or -activating group; R2 = sidechain of naturally occurring amino acid (may be R and/or S); m, n = 1, 2; addnl. provisos] are prepd. as intermediates for antagonists and agonists, resp., of substance P (no data). Thus, (2S)-2-propenylproline-HCl was prepd. and

converted in 2 steps to spirocyclic hydroxy lactone III; reductive amination of III with leucine Me ester and NaBH<sub>3</sub>CN gave I [R = PhCH<sub>2</sub>O<sub>2</sub>C, R<sub>1</sub> = Me, R<sub>2</sub> = (S)-CH<sub>2</sub>CHMe<sub>2</sub>, m = n = 1]. The latter was converted via both liq.- and solid-phase techniques to the peptide analog H-Arg-Pro-Lys-Pro-Glu(NH<sub>2</sub>)-Glu(NH<sub>2</sub>)-Phe-Phe-X-Trp-NH<sub>2</sub> [X = 4-methyl-1-oxo-2(S)-(6-oxo-5(S)-1,7-diazaspiro [4.4]nonan-7-yl)pentyl].

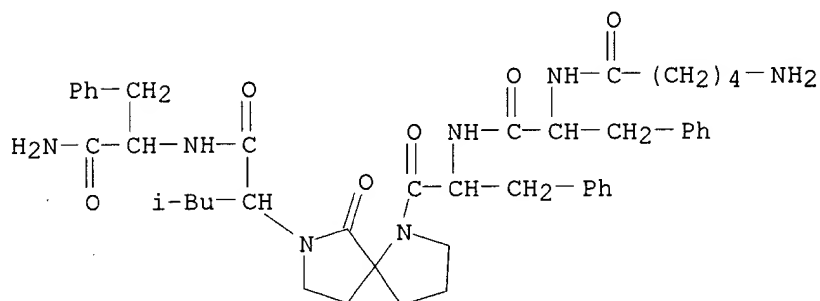
IT Allergy inhibitors

Analgesics

**Inflammation** inhibitors

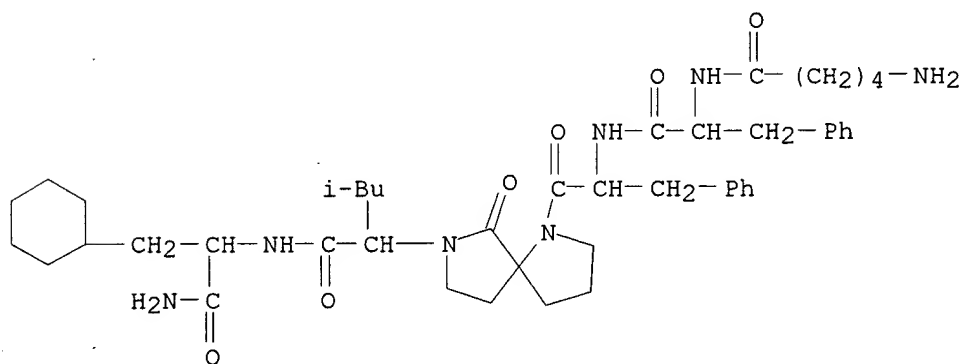
(substance P analogs, prepn. of spiro lactam derivs. as intermediates for)

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, 1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-N-[2-amino-2-oxo-1-(phenylmethyl)ethyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 6  
 MF C45 H59 N7 O6

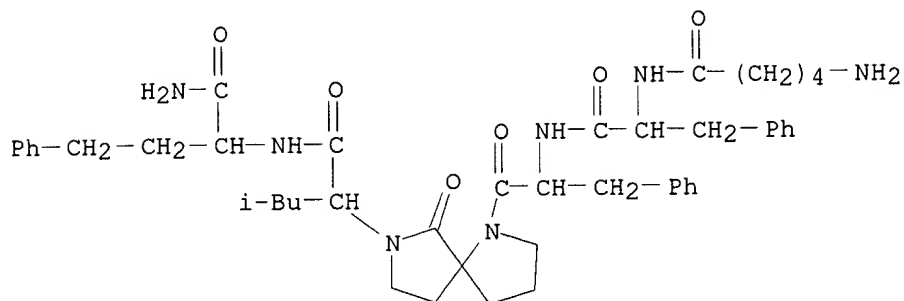


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):39

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[2-amino-1-(cyclohexylmethyl)-2-oxoethyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 6  
 MF C45 H65 N7 O6

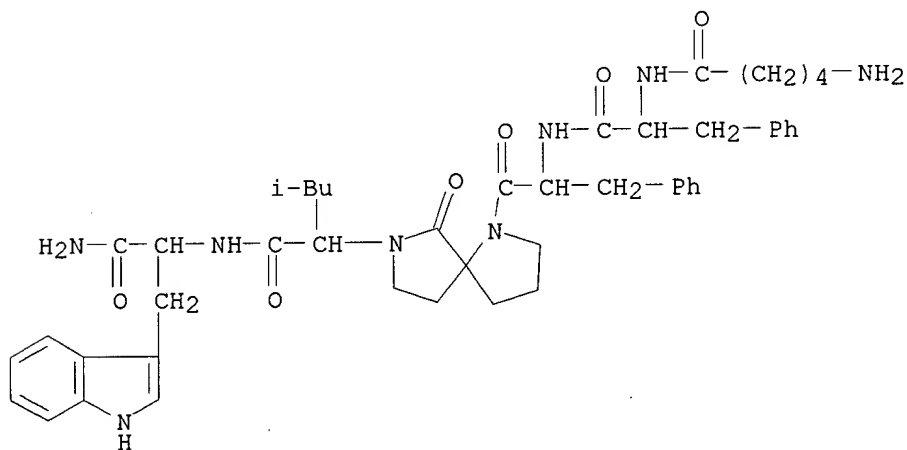


L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[1-(aminocarbonyl)-3-phenylpropyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 6  
 MF C46 H61 N7 O6

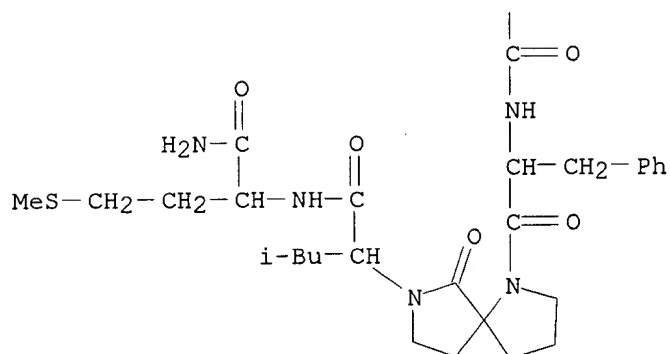
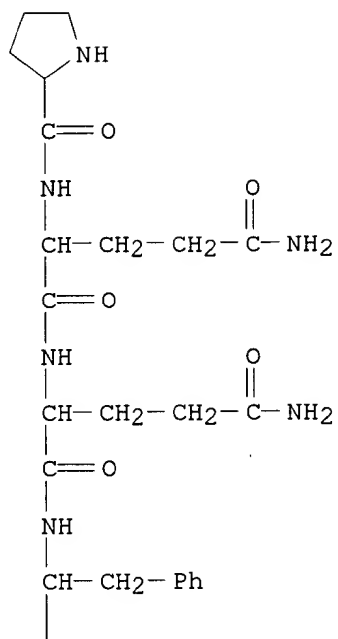


L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 6  
 MF C47 H60 N8 O6

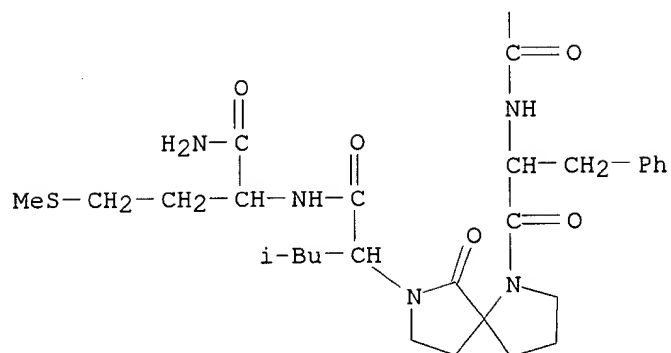
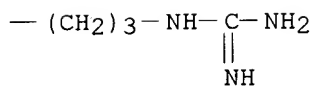
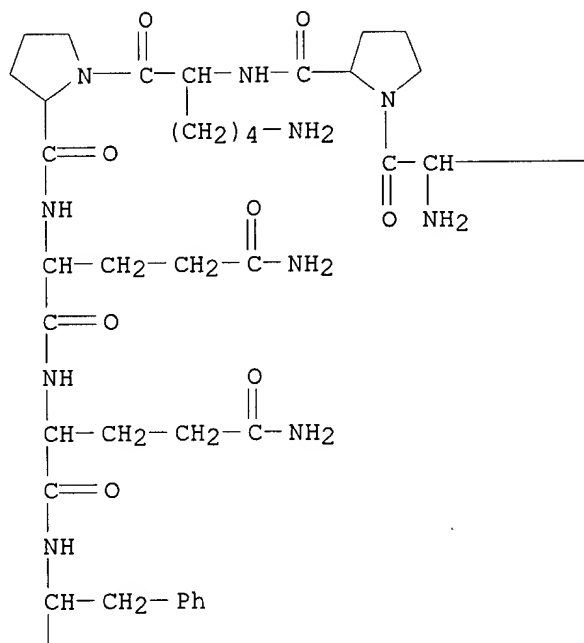
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN L-Phenylalaninamide, L-prolyl-L-glutaminy-L-glutaminy-N-[2-[7-[1-[[[1-(aminocarbonyl)-3-(methylthio)propyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-diazaspiro[4.4]non-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, [5S-[1(R\*),5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 8  
 MF C51 H73 N11 O10 S



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **Substance P, 9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]- (9CI)**  
 SQL 11  
 MF C68 H104 N18 O13 S

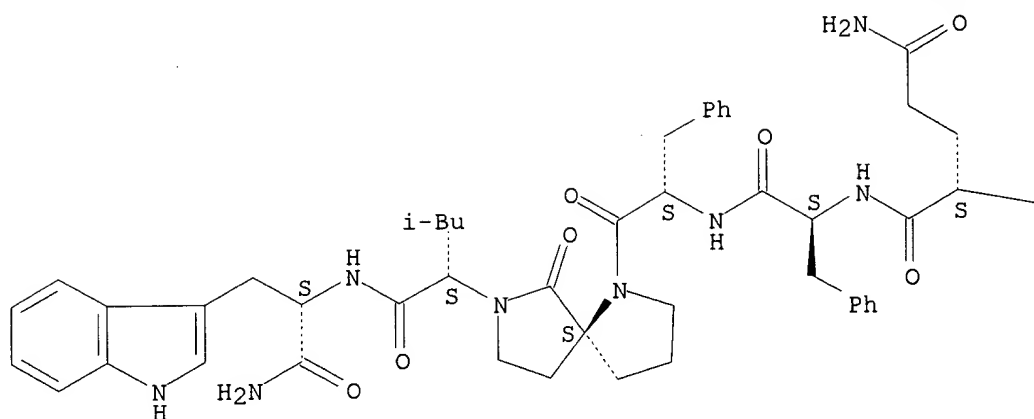




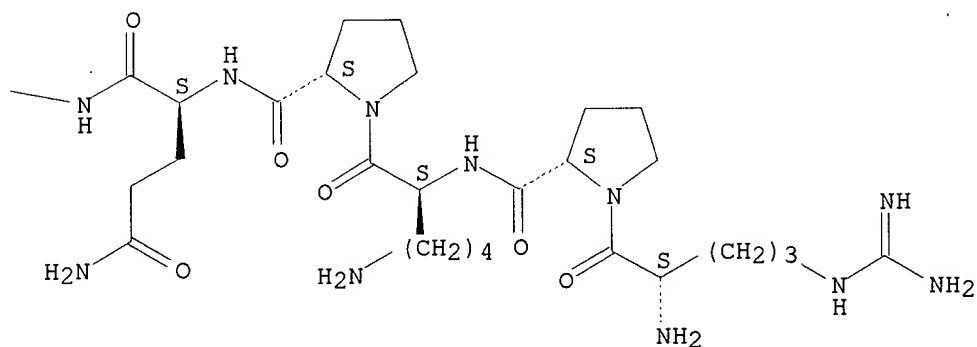
MF C74 H105 N19 O13

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

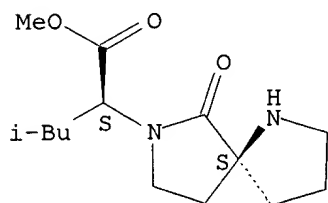


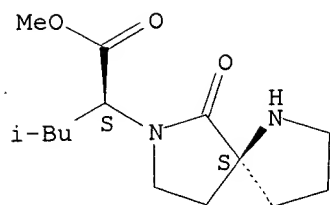
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, .alpha.-(2-methylpropyl)-6-oxo-, methyl ester, [S-(R\*,R\*)]- (9CI)

MF C14 H24 N2 O3

Absolute stereochemistry.





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

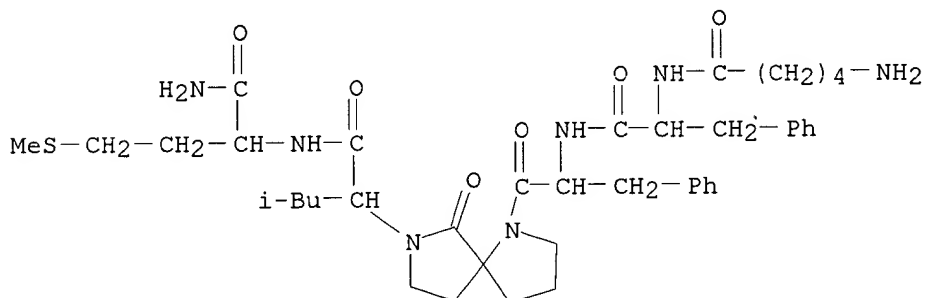
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[1-(aminocarbonyl)-3-(methylthio)propyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(R\*)]]]-(9CI)

SQL 6

MF C41 H59 N7 O6 S

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



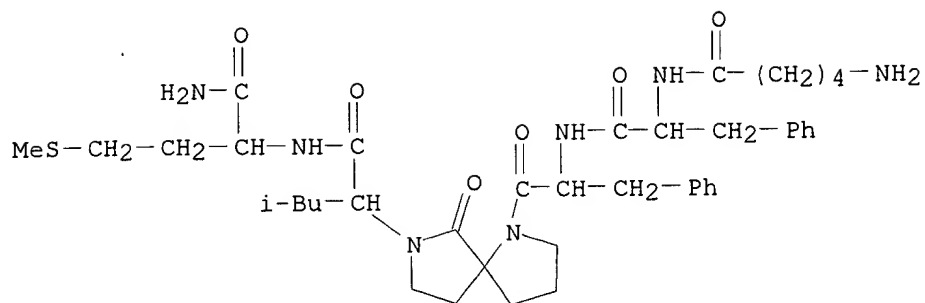
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[1-(aminocarbonyl)-3-(methylthio)propyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(S\*)]]]-(9CI)

SQL 6

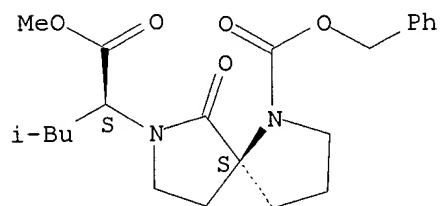
MF C41 H59 N7 O6 S

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, .alpha.-(2-methylpropyl)-6-oxo-1-[(phenylmethoxy)carbonyl]-, methyl ester, (.alpha.S,5S)- (9CI)  
 MF C22 H30 N2 O5

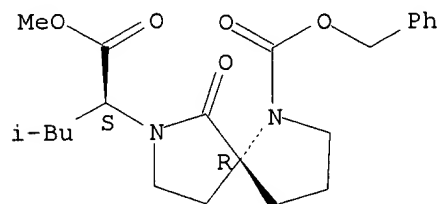
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, .alpha.-(2-methylpropyl)-6-oxo-1-[(phenylmethoxy)carbonyl]-, methyl ester, (.alpha.S,5R)- (9CI)  
 MF C22 H30 N2 O5

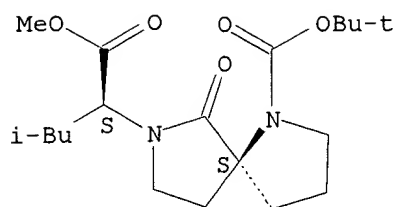
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[(1,1-dimethylethoxy)carbonyl]-.alpha.-(2-methylpropyl)-6-oxo-, methyl ester, (.alpha.S,5S)- (9CI)  
 MF C19 H32 N2 O5

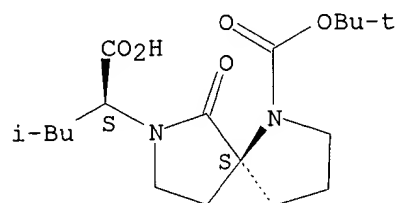
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[(1,1-dimethylethoxy)carbonyl]-.alpha.-(2-methylpropyl)-6-oxo-, [S-(R\*,R\*)]- (9CI)  
 MF C18 H30 N2 O5

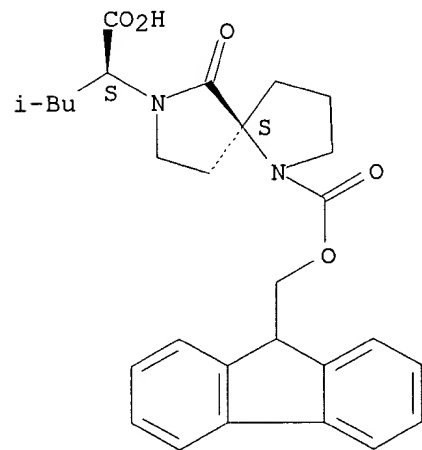
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[(9H-fluoren-9-ylmethoxy)carbonyl]-.alpha.-(2-methylpropyl)-6-oxo-, [S-(R\*,R\*)]- (9CI)  
 MF C28 H32 N2 O5

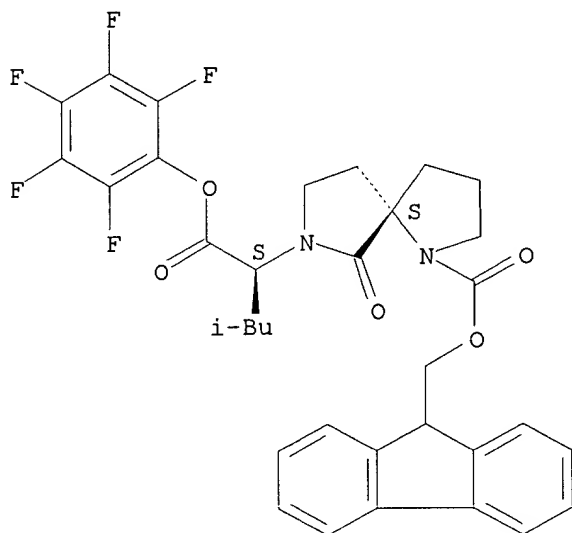
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[(9H-fluoren-9-ylmethoxy)carbonyl]-.alpha.-(2-methylpropyl)-6-oxo-, pentafluorophenyl ester, [S-(R\*,R\*)]- (9CI)  
 MF C34 H31 F5 N2 O5

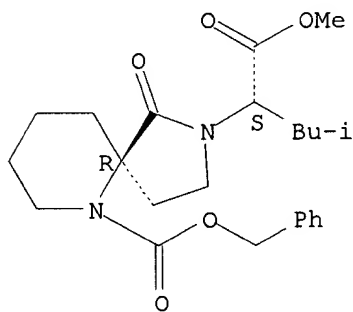
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 2,6-Diazaspiro[4.5]decane-2-acetic acid, .alpha.-(2-methylpropyl)-1-oxo-6-[(phenylmethoxy)carbonyl]-, methyl ester, [R-(R\*,S\*)]- (9CI)  
 MF C23 H32 N2 O5

Absolute stereochemistry.

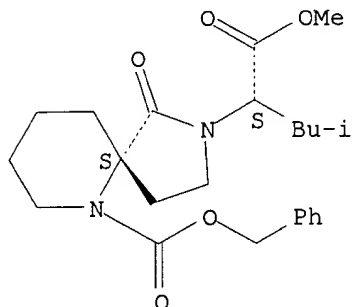


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 2,6-Diazaspiro[4.5]decane-2-acetic acid, .alpha.-(2-methylpropyl)-1-

oxo-6-[(phenylmethoxy)carbonyl]-, methyl ester, [S-(R\*,R\*)]- (9CI)  
 MF C23 H32 N2 O5

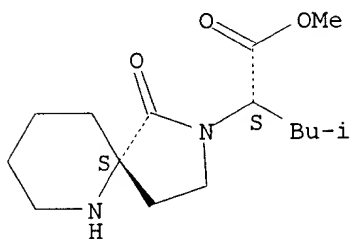
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 2,6-Diazaspiro[4.5]decane-2-acetic acid, .alpha.-(2-methylpropyl)-1-oxo-, methyl ester, [S-(R\*,R\*)]- (9CI)  
 MF C15 H26 N2 O3

Absolute stereochemistry.



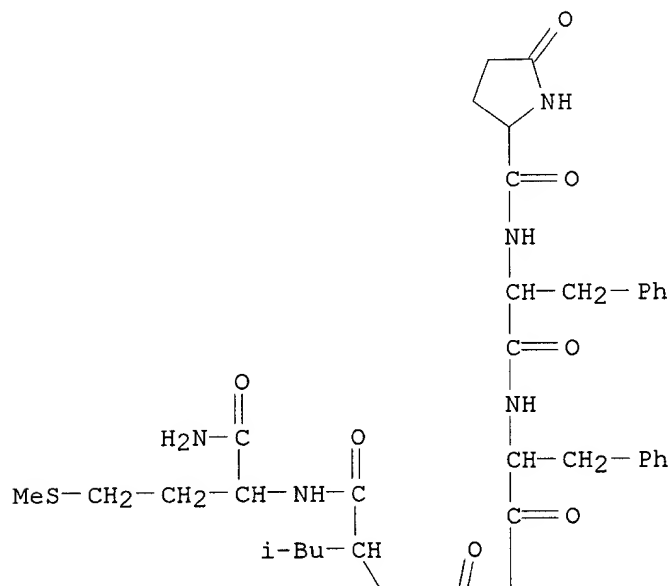
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, 1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-N-[1-(hydroxymethyl)-3-methylbutyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 6  
 MF C42 H62 N6 O6

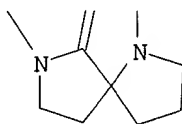
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L17 48 ANSWERS      REGISTRY  COPYRIGHT 2003 ACS on STN
IN   L-Phenylalaninamide, 5-oxo-L-prolyl-N-[2-[7-[1-[[1-(aminocarbonyl)-3-
      (methylthio)propyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-
      diazaspiro[4.4]non-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-,
      [5S-[1(R*),5R*,7[R*(R*)]]]- (9CI)
SQL  6
MF   C41 H55 N7 O7 S
```

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

PAGE 1-A



PAGE 2-A



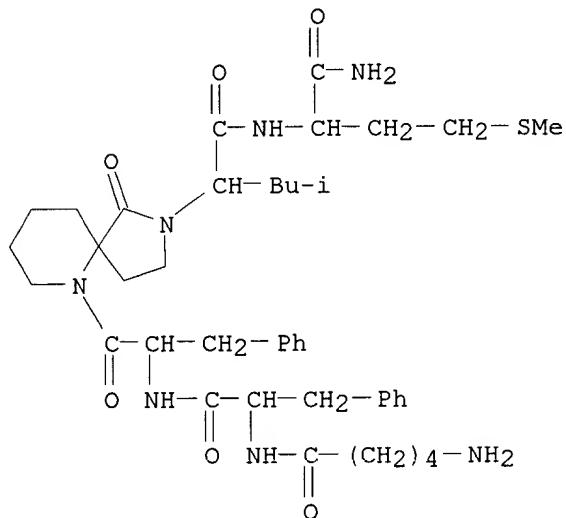
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN 2,6-Diazaspiro[4.5]decane-2-acetamide, N-[1-(aminocarbonyl)-3-(methylthio)propyl]-6-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-1-oxo-, [5S-[2[R\*(R\*)],5R\*]]-(9CI)

SQL 6

MF C42 H61 N7 O6 S

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



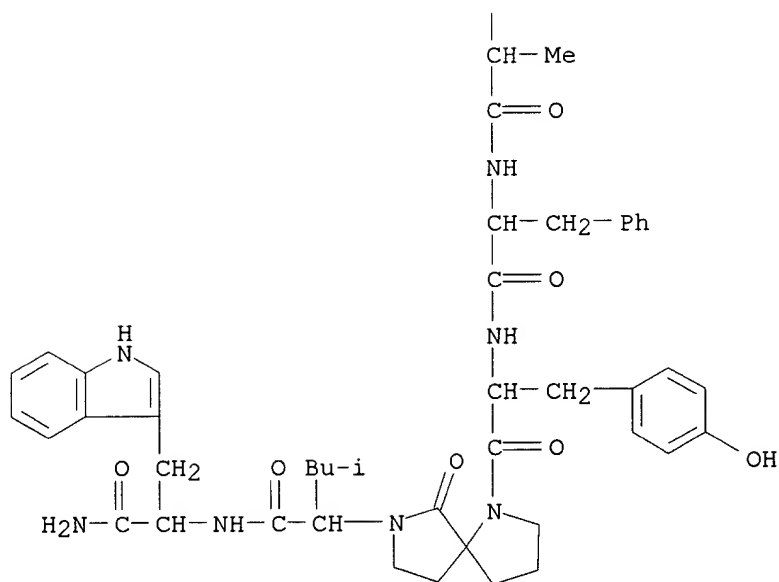
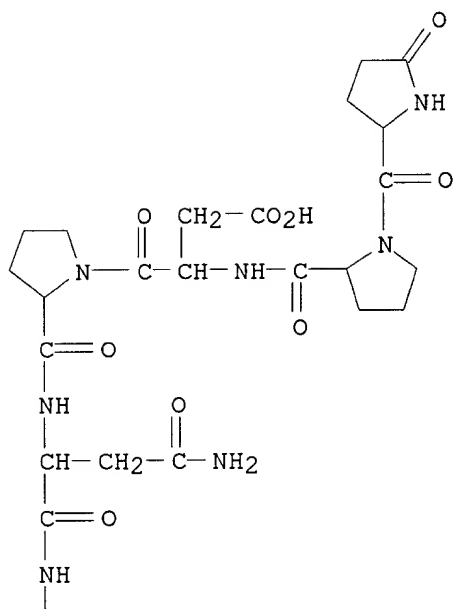
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN Physalemin, 2-L-proline-6-L-alanine-9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]-11-L-tryptophanamide- (9CI)

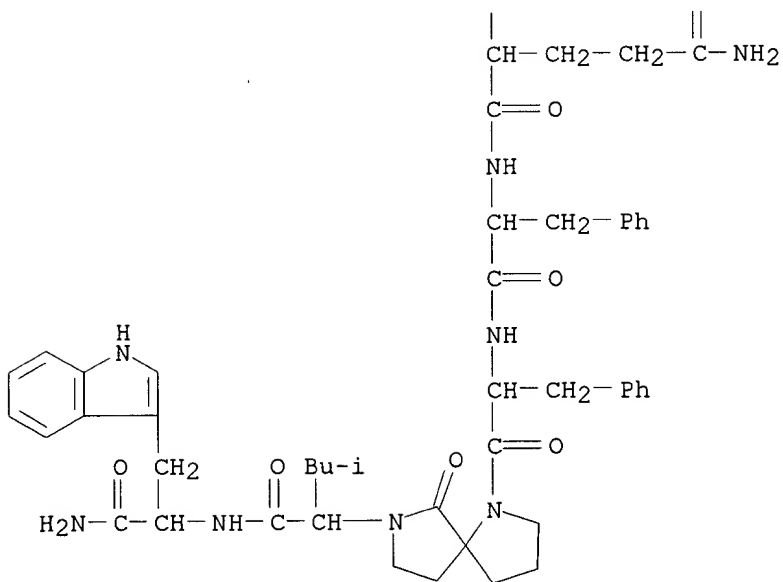
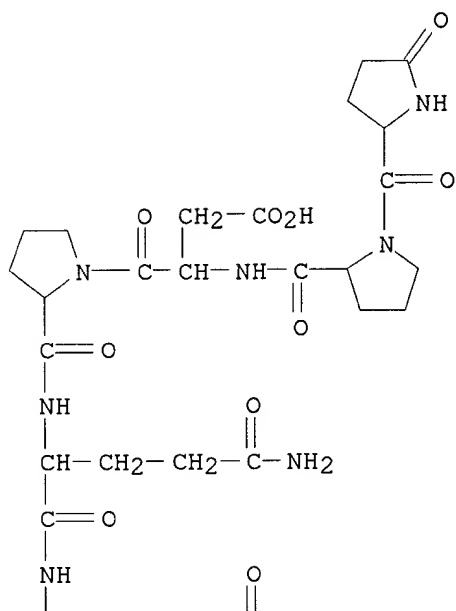
SQL 11

MF C68 H86 N14 O16

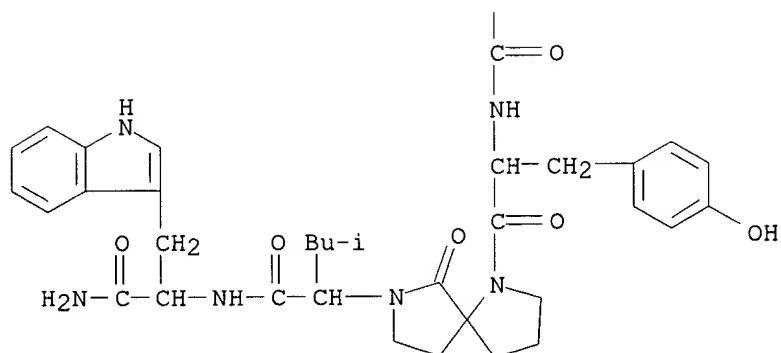
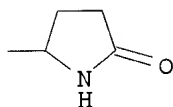
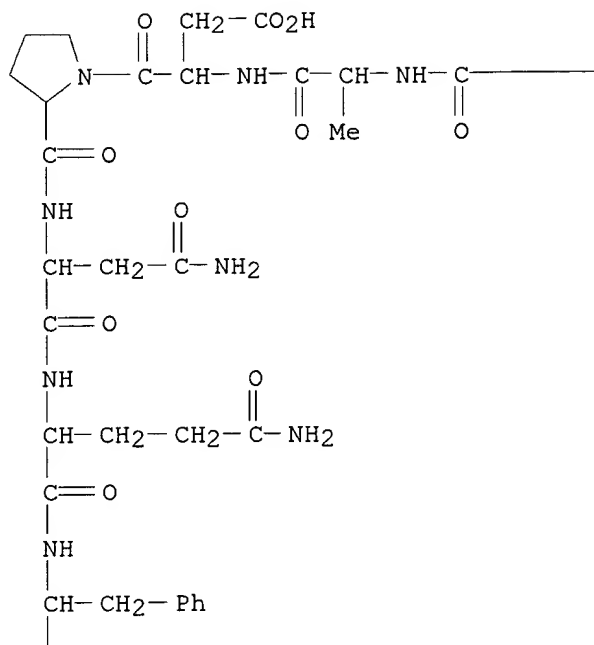




L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **Substance P, 1-(5-oxo-L-proline)-3-L-aspartic acid-9-deglycine-10-**  
**[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic**  
**acid]-11-L-tryptophanamide- (9CI)**  
 SQL 11  
 MF C71 H91 N15 O16



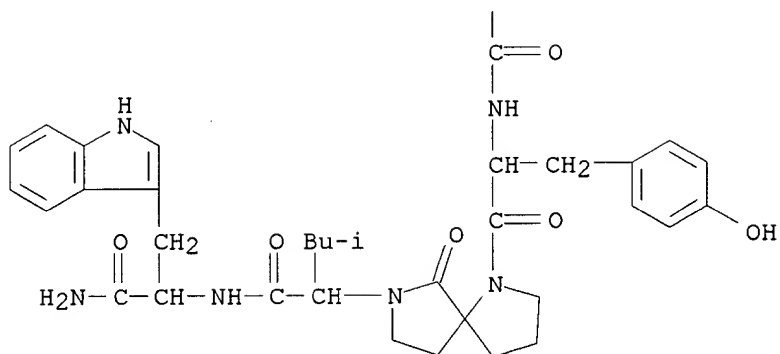
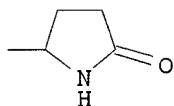
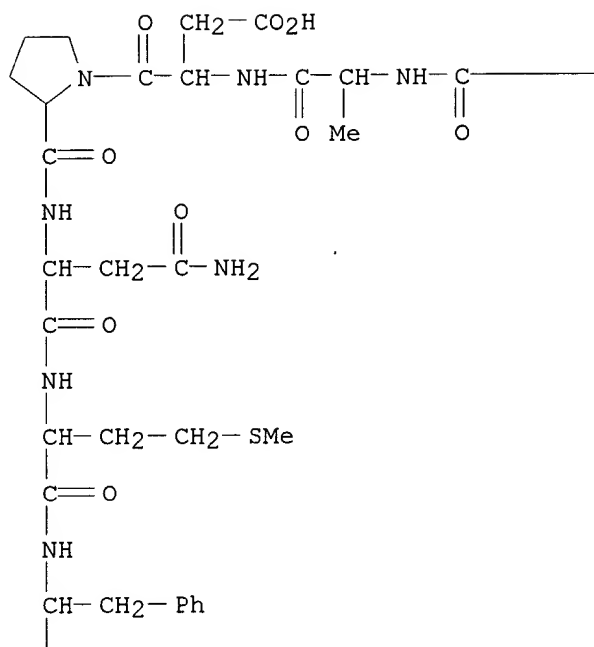
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **Physalemin, 6-L-glutamine-9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]-11-L-tryptophanamide- (9CI)**  
 SQL 11  
 MF C68 H87 N15 O17



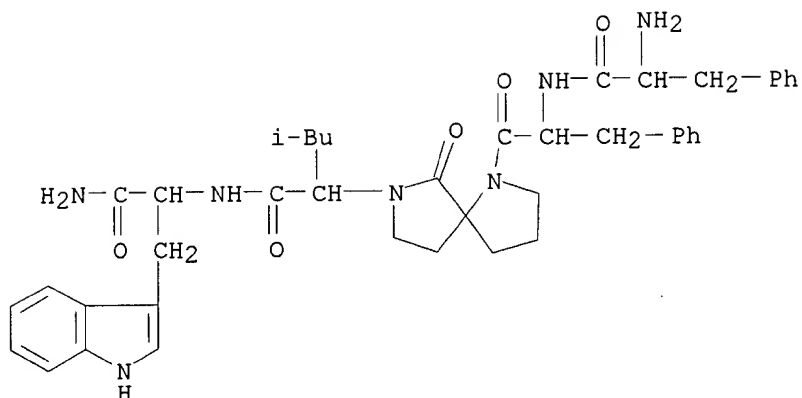
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **Physalemin, 6-L-methionine-9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]-11-L-tryptophanamide- (9CI)**

SQL 11

MF C68 H88 N14 O16 S



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]-.alpha.-(2-methylpropyl)-6-oxo-1-(N-L-phenylalanyl-L-phenylalanyl)-, [5S-[5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 5  
 MF C42 H51 N7 O5

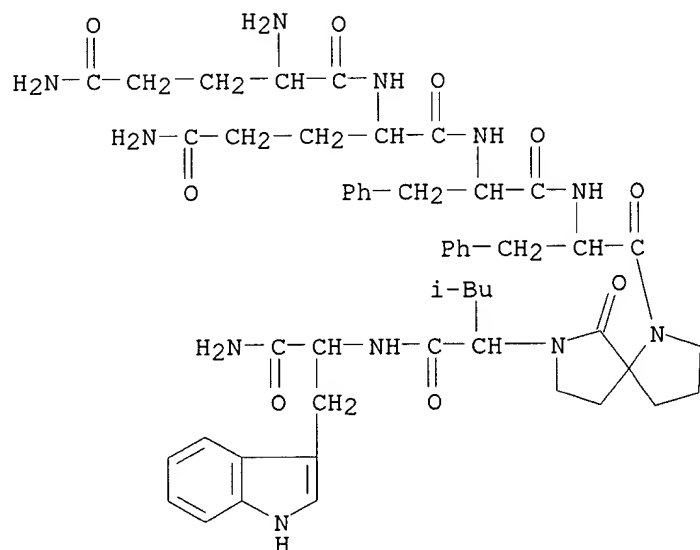


L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN **L-Phenylalaninamide, L-glutaminy-L-glutaminy-N-[2-[7-[1-[[[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-diazaspiro[4.4]non-1-yl]-2-oxo-1-(phenylmethyl)ethyl]-, [5S-[1(R\*),5R\*,7[R\*(R\*)]]]- (9CI)**

SQL 7

MF C52 H67 N11 O9

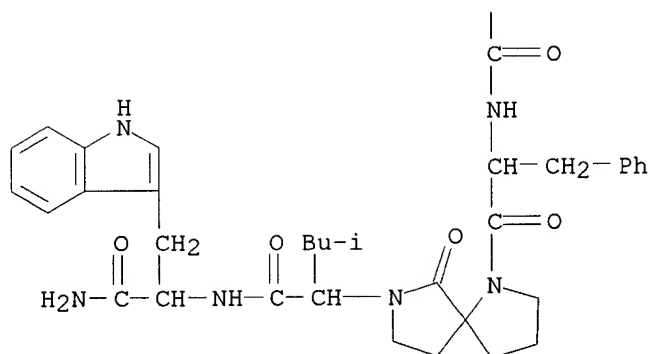
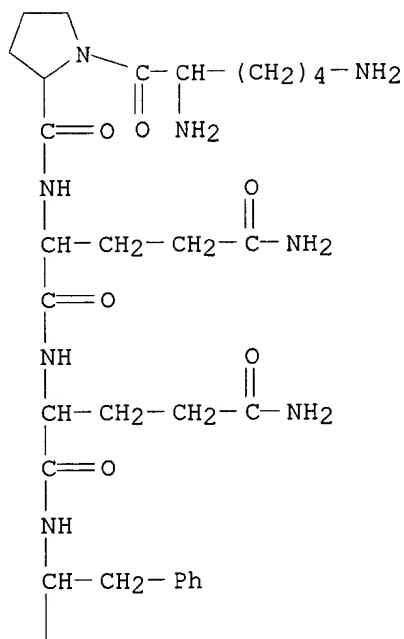


L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN **Substance P, 1-de-L-arginine-2-de-L-proline-9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]-11-L-tryptophanamide- (9CI)**

SQL 9

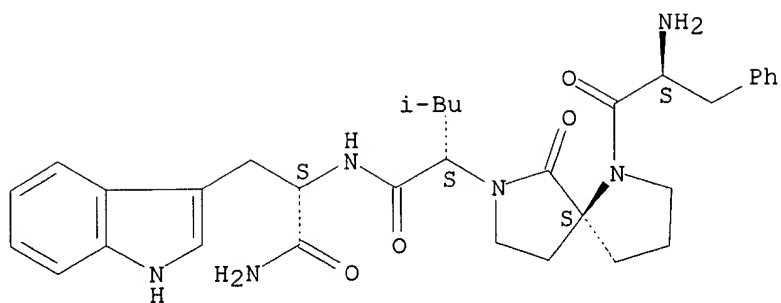
MF C63 H86 N14 O11



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]-1-(2-amino-1-oxo-3-phenylpropyl)-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[1(R\*),5R\*,7[R\*(R\*)]]]- (9CI)  
 SQL 4  
 MF C33 H42 N6 O4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.

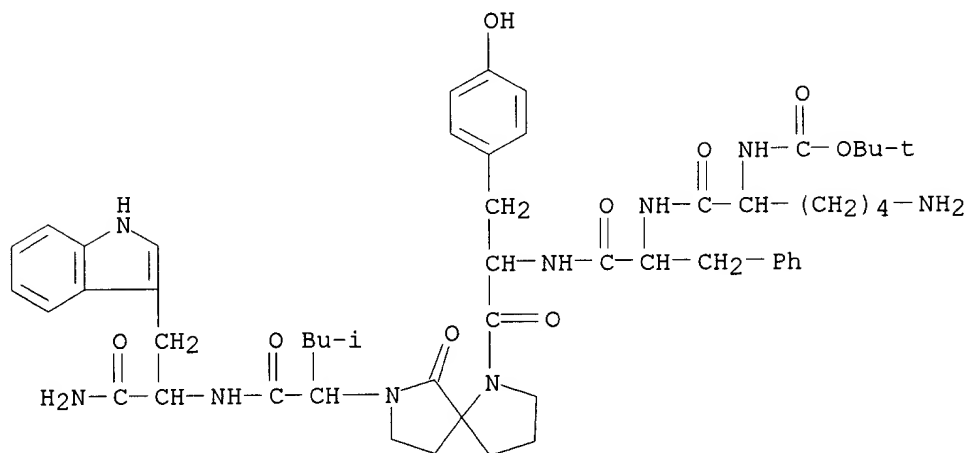


L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN L-Phenylalaninamide, N2-[(1,1-dimethylethoxy) carbonyl]-L-lysyl-N-[2-[7-[1-[[[2-amino-1-(1H-indol-3-yl)methyl]-2-oxoethyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-diazaspiro[4.4]non-1-yl]-1-[(4-hydroxyphenyl)methyl]-2-oxoethyl]-, [5S-[1(R\*),5R\*,7[R\*(R\*)]]]-, trifluoroacetate (salt) (9CI)  
 SQL 6  
 MF C53 H71 N9 O9 . x C2 H F3 O2

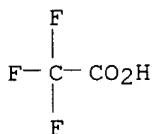
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

CM 1

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



CM 2



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN L-Phenylalaninamide, N2-acetyl-L-lysyl-N-[2-[7-[1-[[[2-amino-1-(1H-indol-3-yl)methyl]-2-oxoethyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-

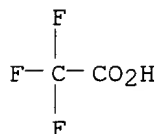
SQL 6

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

CM 1

[illegible]

CM 2



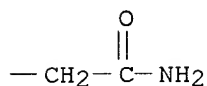
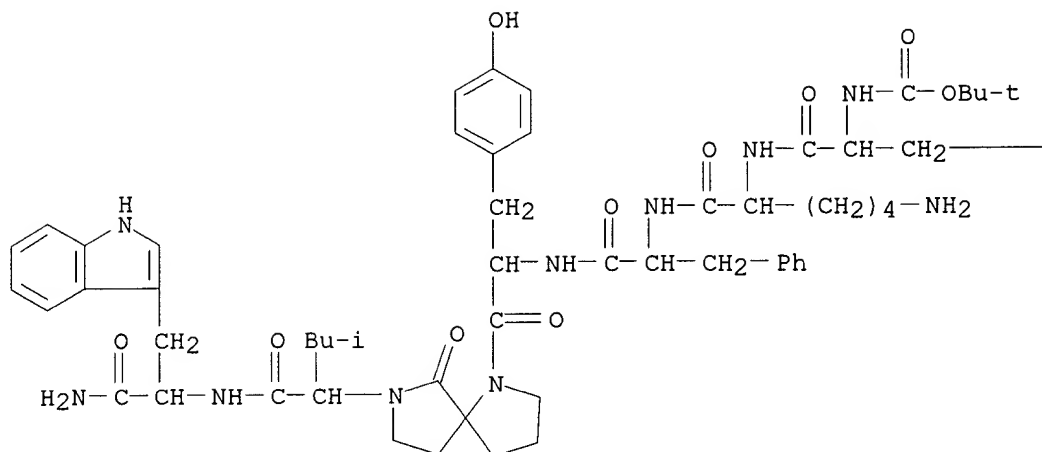
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN

IN L-Phenylalaninamide, N2-[(1,1-dimethylethoxy)carbonyl]-L-glutaminyl-L-lysyl-N-[2-[7-[1-[[[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-diazaspiro[4.4]non-1-yl]-1-[4-hydroxyphenyl)methyl]-2-oxoethyl]-, [5S-[1(R\*),5R\*,7[R\*(R\*)]]]- (9CI)

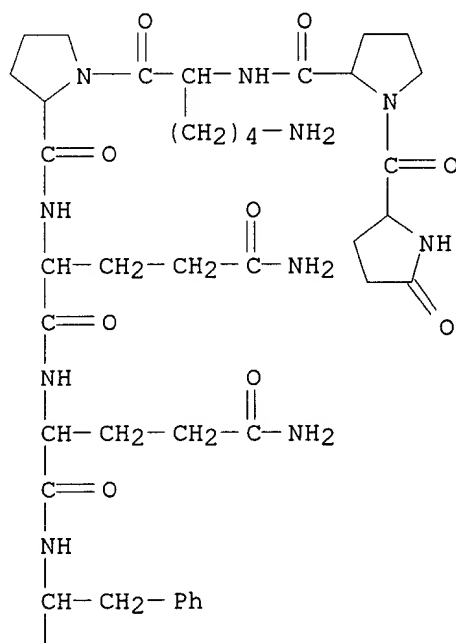
SQL 7

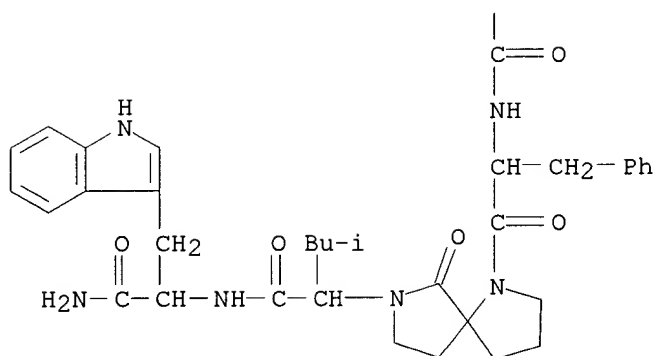
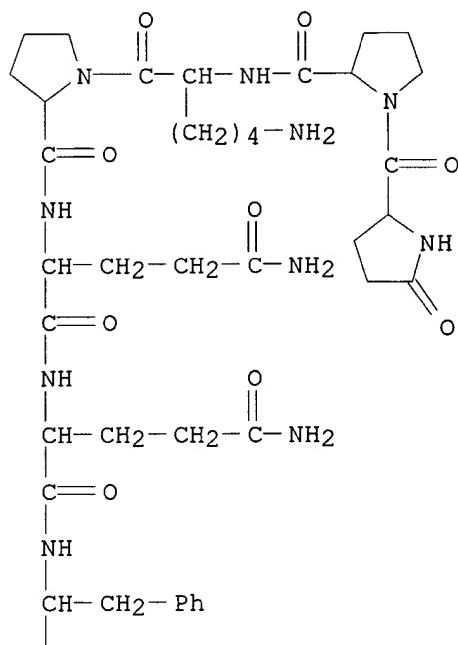
MF C58 H79 N11 O11





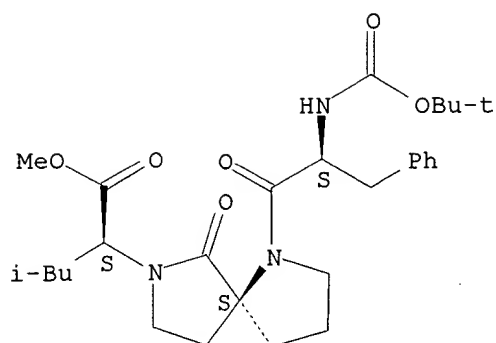
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **Substance P, 1-(5-oxo-L-proline)-9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]-11-L-tryptophanamide- (9CI)**  
 SQL 11  
 MF C73 H98 N16 O14





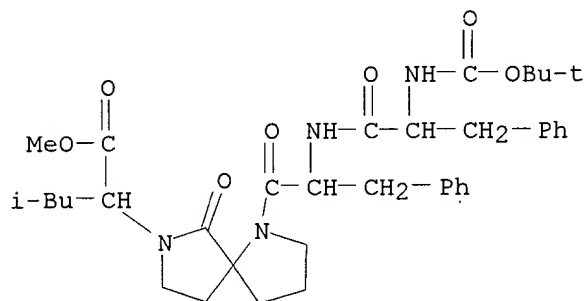
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L17 48 ANSWERS      REGISTRY  COPYRIGHT 2003 ACS on STN
IN   1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[2-[[[(1,1-
      dimethylethoxy) carbonyl] amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-
      methylpropyl)-6-oxo-, methyl ester, [5S-[1(R*),5R*,7(R*)]]- (9CI)
MF   C28 H41 N3 O6
```

Absolute stereochemistry.



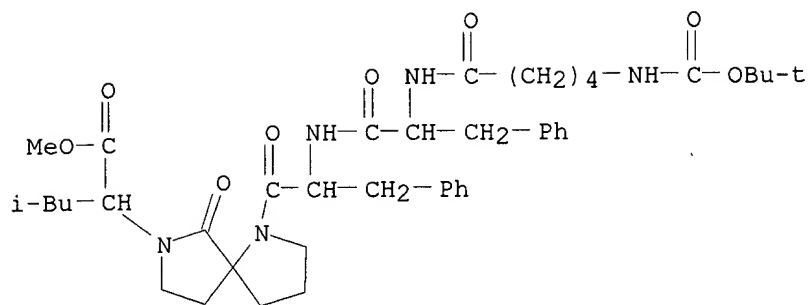
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[N-[N-[(1,1-dimethylethoxy)carbonyl]-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, methyl ester, [S-(R\*,R\*)]- (9CI)  
 SQL 4  
 MF C37 H50 N4 O7



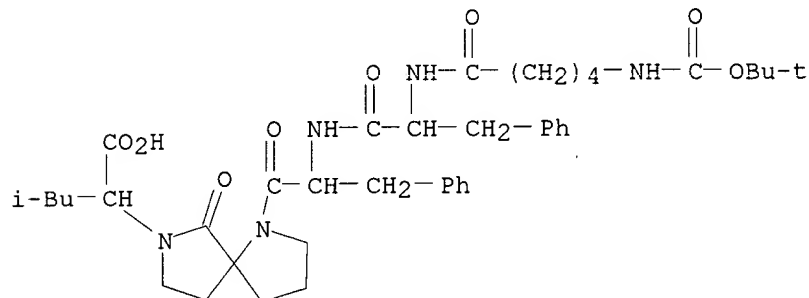
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[N-[N-[5-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxopentyl]-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, methyl ester, [S-(R\*,R\*)]- (9CI)  
 SQL 5  
 MF C42 H59 N5 O8

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



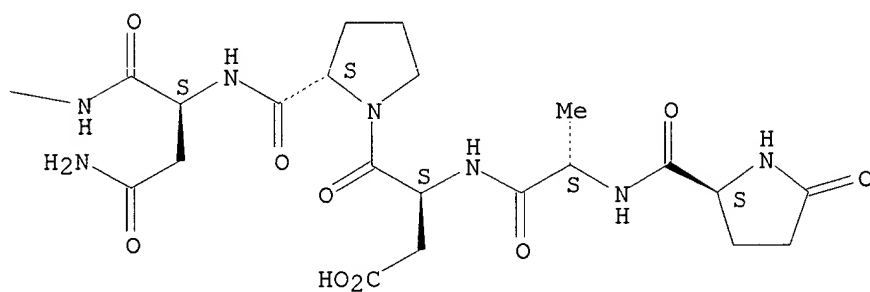
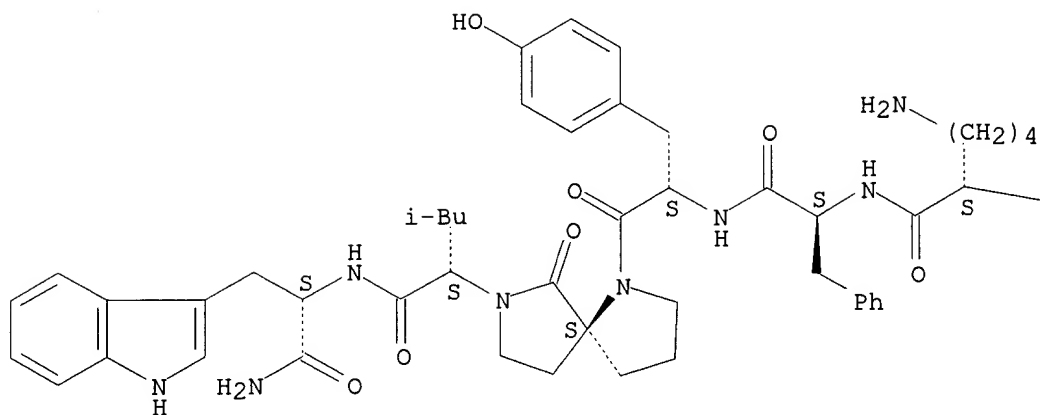
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[N-[N-[5-[[ (1,1-dimethylethoxy) carbonyl] amino]-1-oxopentyl]-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [S-(R\*,R\*)]- (9CI)**  
 SQL 5  
 MF C41 H57 N5 O8

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

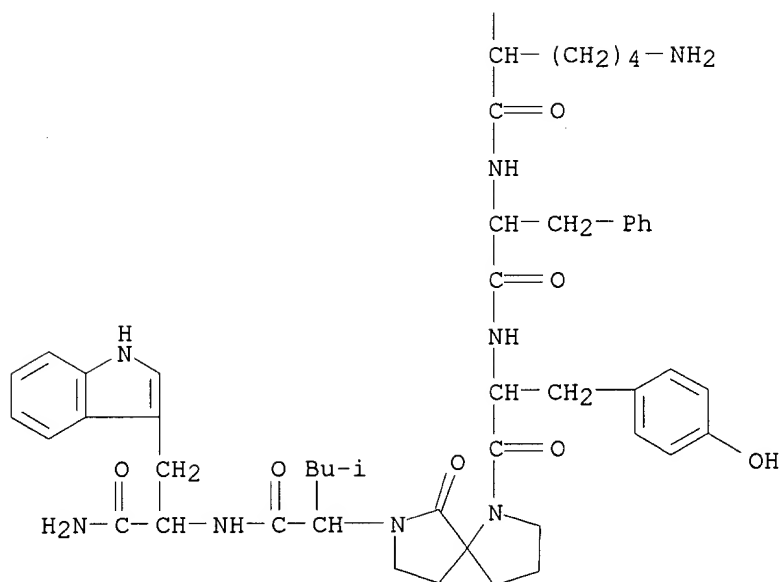
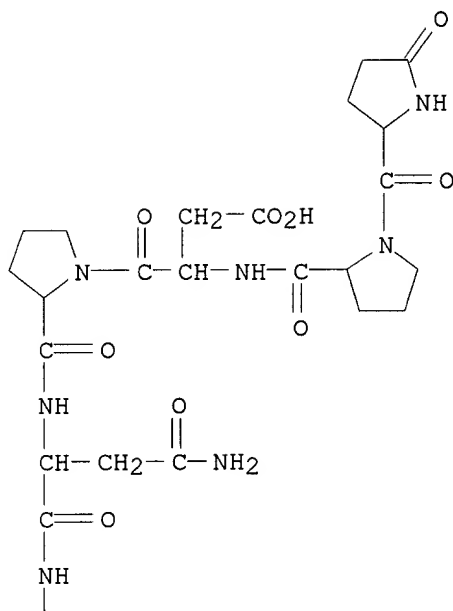


L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **L-Tryptophanamide, 5-oxo-L-prolyl-L-alanyl-L.alpha.-aspartyl-L-prolyl-L-asparaginyl-L-lysyl-L-phenylalanyl-L-tyrosyl-(.alpha.S,5S)-.alpha.-(2-methylpropyl)-6-oxo-1,7-diazaspiro[4.4]nonane-7-acetyl- (9CI)**  
 SQL 11  
 MF C69 H91 N15 O16

Absolute stereochemistry.



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **Physalemin, 2-L-proline-9-deglycine-10-[(5S)-6-oxo-L-.alpha.-(2-methylpropyl)-1,7-diazaspiro[4.4]nonane-7-acetic acid]-11-L-tryptophanamide- (9CI)**  
 SQL 11  
 MF C71 H93 N15 O16

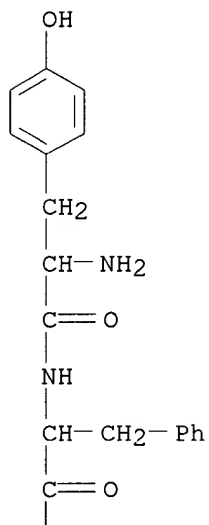


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

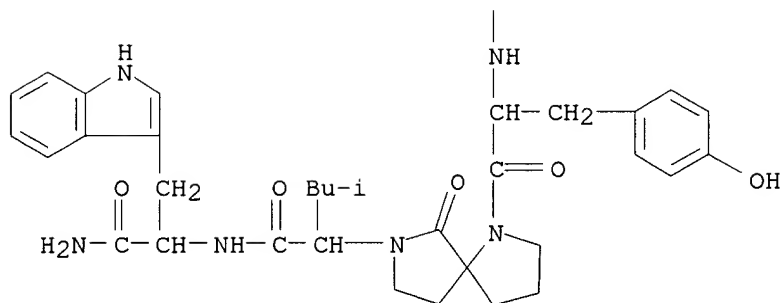
L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN L-Phenylalaninamide, L-tyrosyl-N-[2-[7-[1-[[[2-amino-1-(1H-indol-3-ylmethyl)-2-oxoethyl]amino]carbonyl]-3-methylbutyl]-6-oxo-1,7-diazaspiro[4.4]non-1-yl]-1-[(4-hydroxyphenyl)methyl]-2-oxoethyl]-, [5S-[1(R\*),5R\*,7[R\*(R\*)]]]-, trifluoroacetate (salt) (9CI)  
 SQL 6  
 MF C51 H60 N8 O8 . x C2 H F3 O2

CM 1

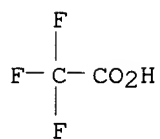
PAGE 1-A



PAGE 2-A

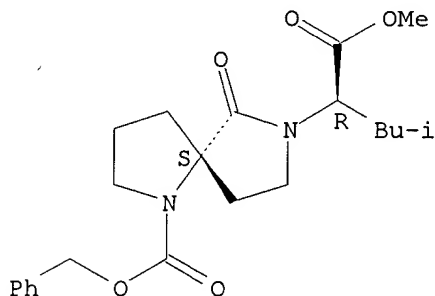


CM 2



L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, .alpha.-(2-methylpropyl)-6-  
 oxo-1-[(phenylmethoxy)carbonyl]-, methyl ester, (R\*,S\*)- (9CI)  
 MF C22 H30 N2 O5

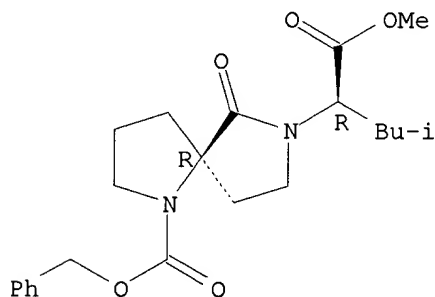
Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, .alpha.-(2-methylpropyl)-6-  
 oxo-1-[(phenylmethoxy)carbonyl]-, methyl ester, (R\*,R\*)- (9CI)  
 MF C22 H30 N2 O5

Relative stereochemistry.

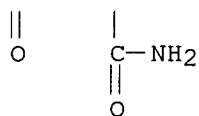
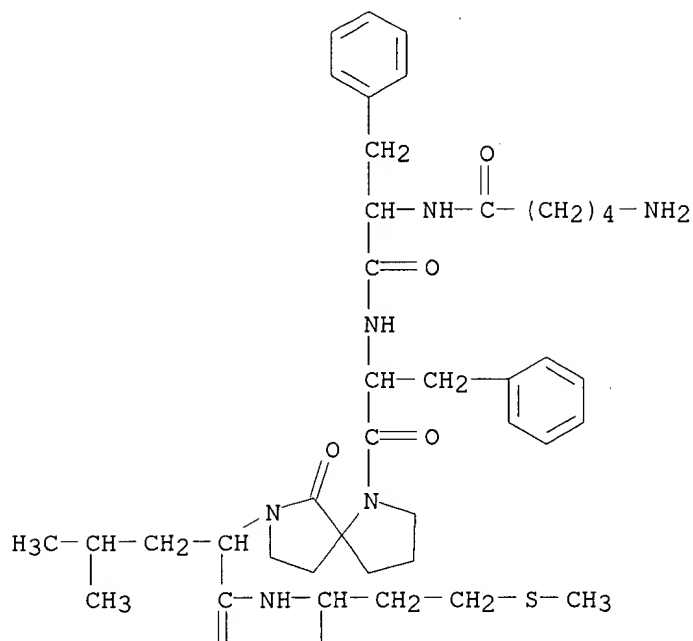


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[1-(aminocarbonyl)-3-  
 (methylthio)propyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-  
 phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5S-[5R\*,7[S\*(R\*)]]]-  
 (9CI)  
 SQL 6  
 MF C41 H59 N7 O6 S

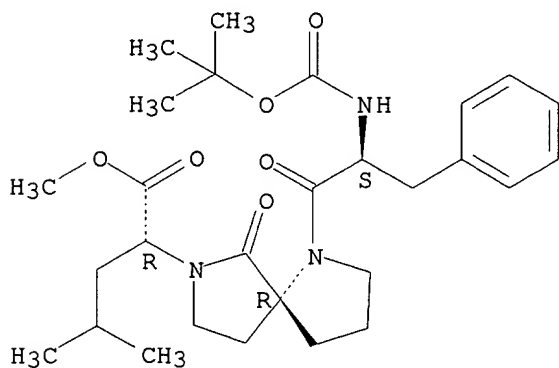
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*





L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN **1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[2-[[1,1-dimethylethoxy)carbonyl]amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methylpropyl)-6-oxo-, methyl ester, [5R-[1(S\*),5R\*,7(R\*)]]-** (9CI)  
 MF C28 H41 N3 O6

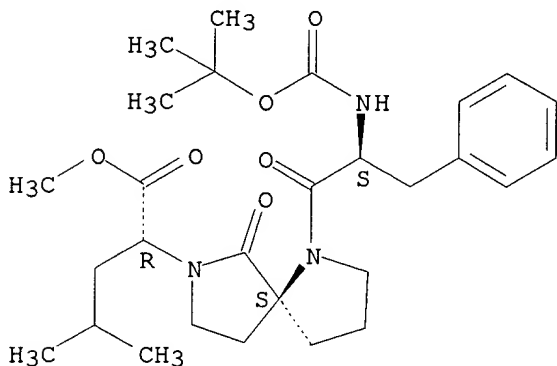
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[2-[[1,1-dimethylethoxy)carbonyl]amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methylpropyl)-6-oxo-, methyl ester, [5S-[1(R\*),5R\*,7(S\*)]]- (9CI)  
 MF C28 H41 N3 O6

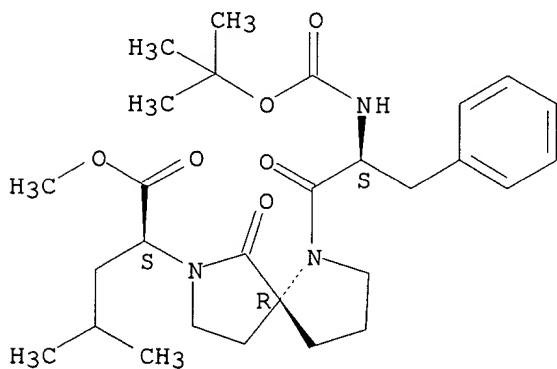
Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetic acid, 1-[2-[[1,1-dimethylethoxy)carbonyl]amino]-1-oxo-3-phenylpropyl]-.alpha.-(2-methylpropyl)-6-oxo-, methyl ester, [5R-[1(S\*),5R\*,7(S\*)]]- (9CI)  
 MF C28 H41 N3 O6

Absolute stereochemistry.

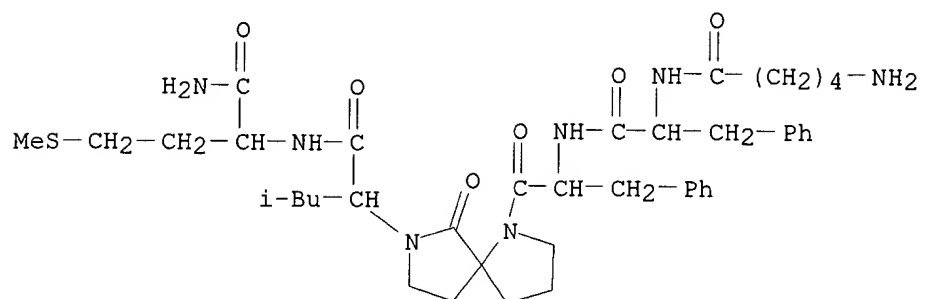


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L17 48 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1,7-Diazaspiro[4.4]nonane-7-acetamide, N-[1-(aminocarbonyl)-3-(methylthio)propyl]-1-[N-[N-(5-amino-1-oxopentyl)-L-phenylalanyl]-L-phenylalanyl]-.alpha.-(2-methylpropyl)-6-oxo-, [5R-[5R\*,7[S\*(S\*)]]]- (9CI)  
 SQL 6

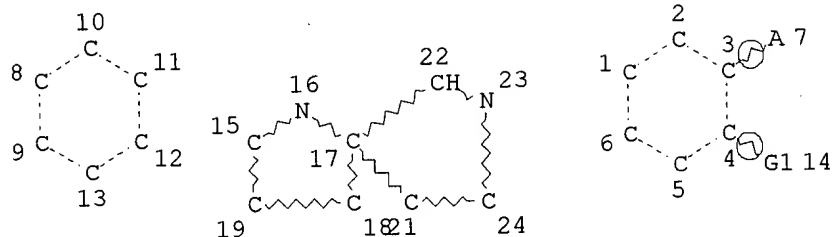
MF C41 H59 N7 O6 S

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*



ALL ANSWERS HAVE BEEN SCANNED

=> d 13  
 L3 HAS NO ANSWERS  
 L3 STR



VAR G1=N/O  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

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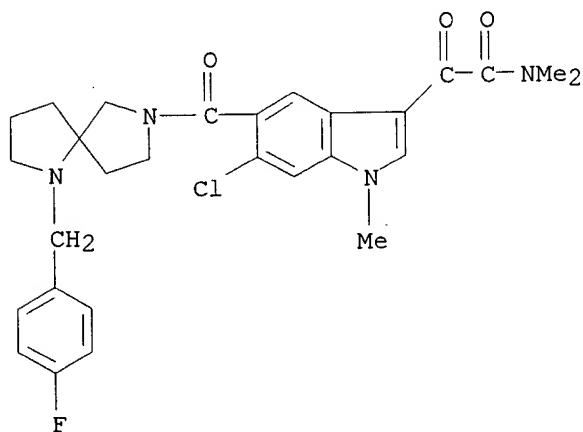
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15 ANSWERS

L5 15 SEA SSS FUL L3

=> d scan

L5 15 ANSWERS REGISTRY COPYRIGHT 2003 ACS on STN  
 IN 1H-Indole-3-acetamide, 6-chloro-5-[[1-[(4-fluorophenyl)methyl]-1,7-diazaspiro[4.4]non-7-yl]carbonyl]-N,N,1-trimethyl-.alpha.-oxo- (9CI)  
 MF C28 H30 Cl F N4 O3



=> s 15

L6 4 L5

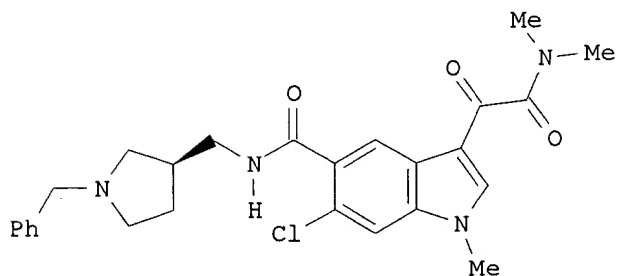
=> d bib abs hitstr 1-4

L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2002:428896 CAPLUS  
DN 137:6088  
TI Preparation of indolecarboxamides as p38-.alpha. inhibitors  
IN Dugar, Sundeeep; Mavunkel, Babu J.; Luedtke, Gregory R.; Mcenroe, Glen  
PA Scios Inc., USA  
SO PCT Int. Appl., 64 pp.  
CODEN: PIXXD2

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044168	A2	20020606	WO 2001-US43439	20011120
	WO 2002044168	A3	20030522		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002037657	A5	20020611	AU 2002-37657	20011120
	US 2003100588	A1	20030529	US 2001-989991	20011120
	EP 1339708	A2	20030903	EP 2001-986461	20011120
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 2000-252163P	P	20001120		
	WO 2001-US43439	W	20011120		
OS	MARPAT 137:6088				
GI					



AB Title compds. were prepd. as p38-.alpha. inhibitors (no data). Thus, 6-chloro-1-methyl-1H-indole-5-carboxylic acid was amidated by (R)-3-aminomethyl-1-benzylpyrrolidine followed by acylation and amidation to give title compd. I.

IT 433286-59-0P

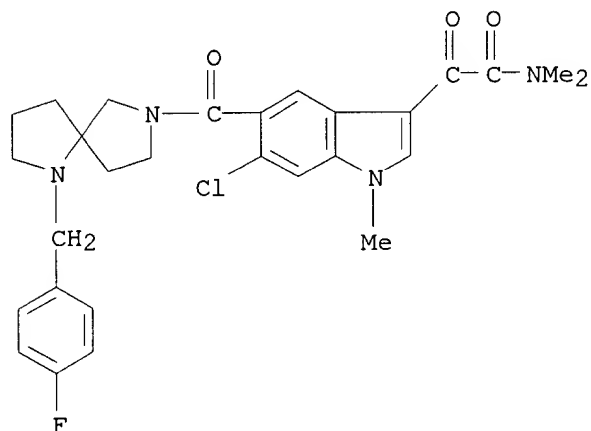
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of indolecarboxamides as p38-.alpha. inhibitors)

RN 433286-59-0 CAPLUS

CN 1H-Indole-3-acetamide, 6-chloro-5-[[1-[(4-fluorophenyl)methyl]-1,7-diazaspiro[4.4]non-7-yl]carbonyl]-N,N,1-trimethyl-.alpha.-oxo- (9CI) (CA INDEX NAME)



L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:166394 CAPLUS

DN 126:225438

TI 1,3-Dipolar cycloaddition approach to indolic aza analogs of cephalotaxine

AU Nyerges, Miklos; Rudas, Monika; Bitter, Istvan; Toke, Laszlo

CS Dep. Org. Chem. Technol., Tech. Univ. Budapest, Budapest, H-1521, Hung.

SO Tetrahedron (1997), 53(9), 3269-3280

CODEN: TETRAB; ISSN: 0040-4020

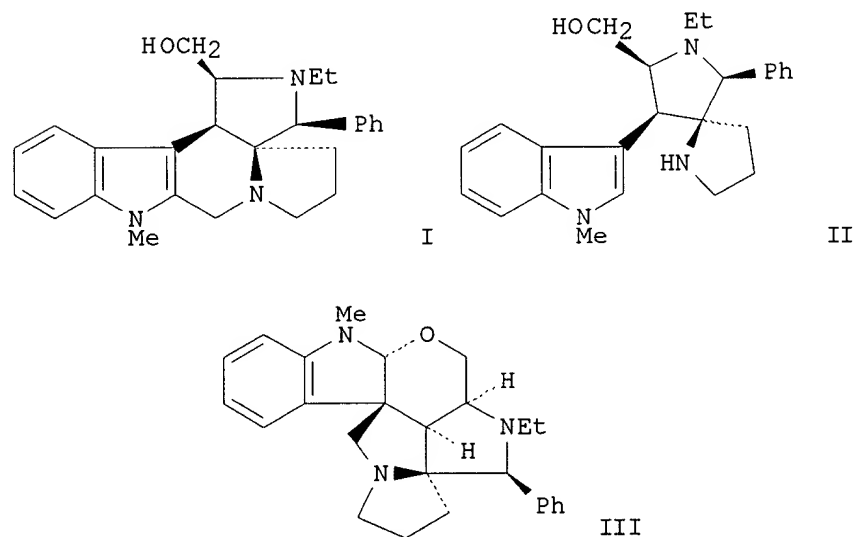
PB Elsevier

DT Journal

LA English

OS CASREACT 126:225438

GI



AB An indolic aza-analog I of cephalotaxine has been prepd. stereoselectively using 1,3-dipolar cycloaddn. of azomethine ylides as a key step. The Pictet-Spengler reaction of the amine II resulted in the formation of an unusual heterocyclic product III. The structure and stereochem. of III was were studied in detail by NMR. methods.

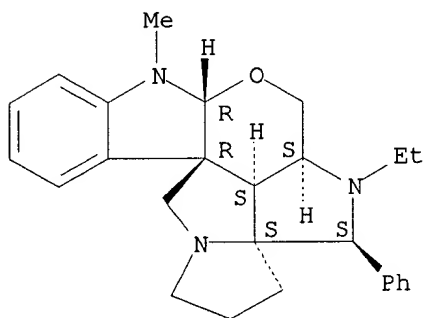
IT **188348-64-3P 188348-67-6P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(1,3-dipolar cycloaddn. approach to indolic aza analogs of cephalotaxine)

RN 188348-64-3 CAPLUS

CN 1H,6H,13H-7-Oxa-5,8,13a-triazacyclopenta[3a,4]pentaleno[1,6-cd]fluorene, 5-ethyl-2,3,4,5,5a,7a,8,12c-octahydro-8-methyl-4-phenyl-, (3aR\*,4.alpha.,5a.beta.,7a.alpha.,12bS\*,12c.beta.)- (9CI) (CA INDEX NAME)

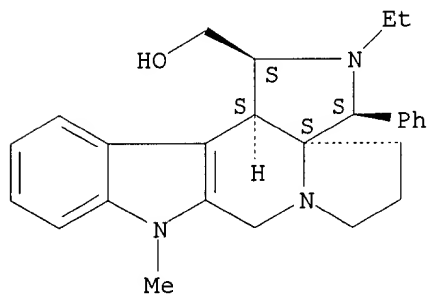
Relative stereochemistry.



RN 188348-67-6 CAPLUS

CN 4H-Pyrrolo[3',4':8,8a]indolizino[6,7-b]indole-1-methanol, 2-ethyl-1,2,3,5,6,8,9,13c-octahydro-9-methyl-3-phenyl-, (1.alpha.,3.alpha.,3aR\*,13c.beta.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **188348-62-1P 188348-63-2P 188348-65-4P**

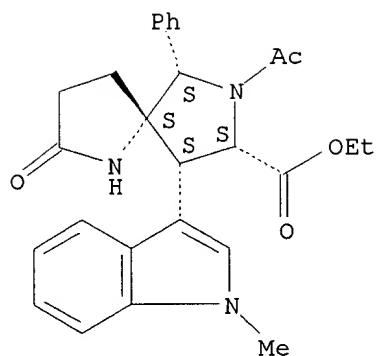
**188348-66-5P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(1,3-dipolar cycloaddn. approach to indolic aza analogs of cephalotaxine)

RN 188348-62-1 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-carboxylic acid, 7-acetyl-9-(1-methyl-1H-indol-3-yl)-2-oxo-6-phenyl-, ethyl ester, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)- (9CI) (CA INDEX NAME)

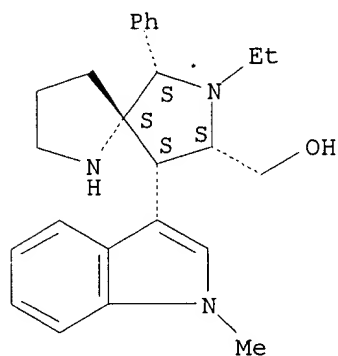
Relative stereochemistry.



RN 188348-63-2 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-methanol, 7-ethyl-9-(1-methyl-1H-indol-3-yl)-6-phenyl-, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)- (9CI) (CA INDEX NAME)

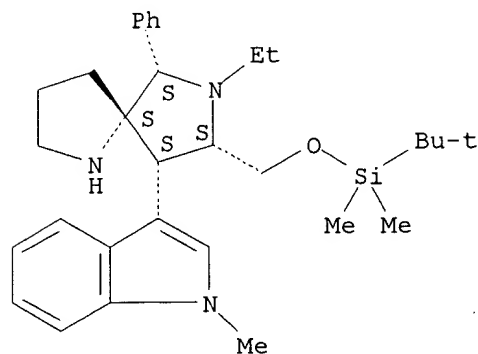
Relative stereochemistry.



RN 188348-65-4 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane, 8-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-7-ethyl-9-(1-methyl-1H-indol-3-yl)-6-phenyl-, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

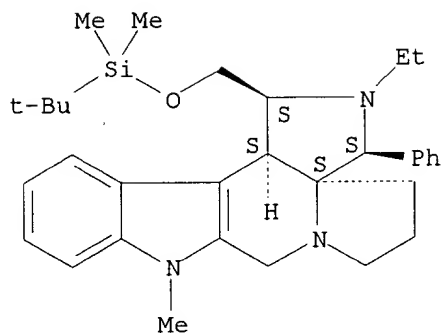


RN 188348-66-5 CAPLUS

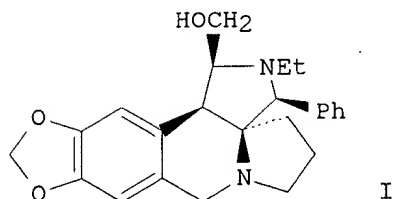
CN 4H-Pyrrolo[3',4':8,8a]indolizino[6,7-b]indole, 1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-2-ethyl-1,2,3,5,6,8,9,13c-octahydro-9-methyl-3-phenyl-, (1.alpha.,3.alpha.,3aR\*,13c.beta.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



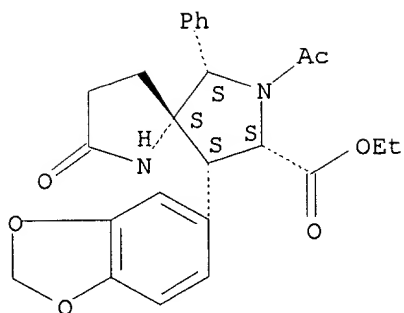


L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1995:881131 CAPLUS  
 DN 124:9069  
 TI 1,3-Dipolar cycloaddition approach towards the stereoselective preparation of aza-cephalotaxine skeleton  
 AU Nyerges, Miklos; Bitter, Istvan; Kadas, Istvan; Toth, Gabor; Toke, Laszlo  
 CS Res. Group Hungarian Acad. Sci., Dep. Org. Chem., Budapest, H-1521, Hung.  
 SO Tetrahedron (1995), 51(42), 11489-502  
 CODEN: TETRAB; ISSN: 0040-4020  
 PB Elsevier  
 DT Journal  
 LA English  
 OS CASREACT 124:9069  
 GI



AB An aza-analog I of cephalotaxine was prepd. stereoselectively using 1,3-dipolar cycloaddn. of azomethine ylide as a key step.  
 IT 157035-39-7P 157035-40-0P 157035-41-1P  
 171020-26-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (dipolar cycloaddn. approach towards stereoselective prepn. of aza-cephalotaxine skeleton)  
 RN 157035-39-7 CAPLUS  
 CN 1,7-Diazaspiro[4.4]nonane-8-carboxylic acid, 7-acetyl-9-(1,3-benzodioxol-5-yl)-2-oxo-6-phenyl-, ethyl ester, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)-(9CI) (CA INDEX NAME)

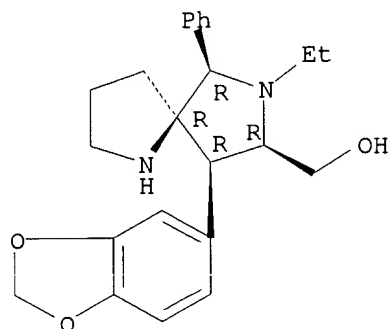
Relative stereochemistry.



RN 157035-40-0 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-methanol, 9-(1,3-benzodioxol-5-yl)-7-ethyl-6-phenyl-, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)- (9CI) (CA INDEX NAME)

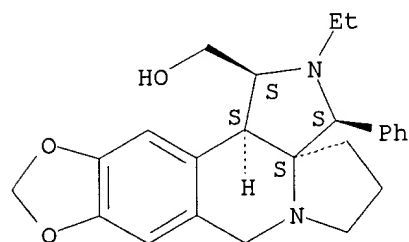
Relative stereochemistry.



RN 157035-41-1 CAPLUS

CN 1H,4H-[1,3]Dioxolo[4,5-g]dipyrrolo[1,2-b:3',4'-c]isoquinoline-1-methanol, 2-ethyl-2,3,5,6,8,13b-hexahydro-3-phenyl-, (1.alpha.,3.alpha.,3aR\*,13b.beta.a.)- (9CI) (CA INDEX NAME)

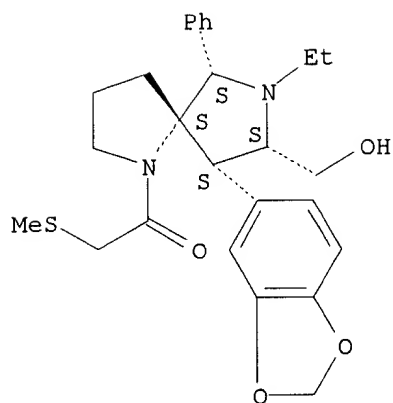
Relative stereochemistry.



RN 171020-26-1 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-methanol, 9-(1,3-benzodioxol-5-yl)-7-ethyl-1-[(methylthio)acetyl]-6-phenyl-, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



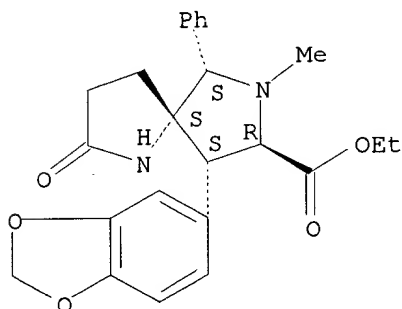
IT 171020-23-8P 171020-25-0P 171020-27-2P  
171231-94-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(dipolar cycloaddn. approach towards stereoselective prepn. of  
aza-cephalotaxine skeleton)

RN 171020-23-8 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-carboxylic acid, 9-(1,3-benzodioxol-5-yl)-7-  
methyl-2-oxo-6-phenyl-, ethyl ester, (5.alpha.,6.alpha.,8.beta.,9.alpha.)-  
(9CI) (CA INDEX NAME)

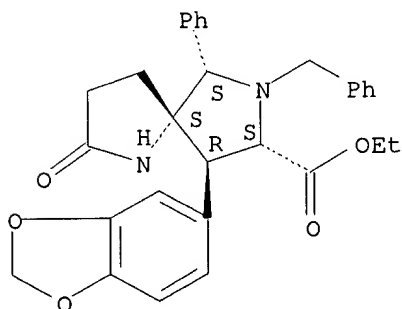
Relative stereochemistry.



RN 171020-25-0 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-carboxylic acid, 9-(1,3-benzodioxol-5-yl)-2-  
oxo-6-phenyl-7-(phenylmethyl)-, ethyl ester, (5.alpha.,6.alpha.,8.alpha.,9  
.beta.)- (9CI) (CA INDEX NAME)

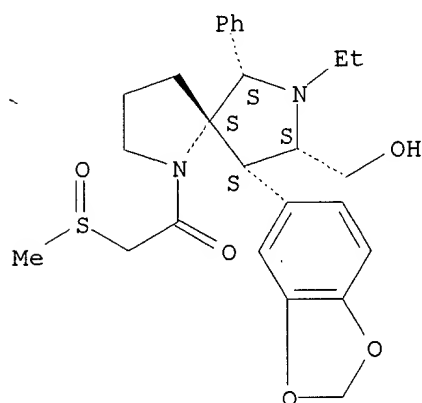
Relative stereochemistry.



RN 171020-27-2 CAPLUS

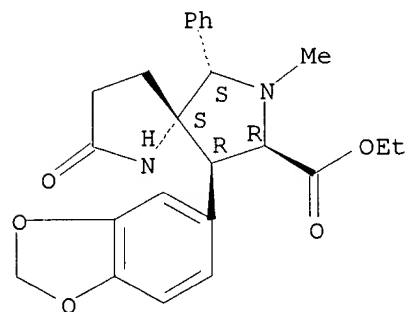
CN 1,7-Diazaspiro[4.4]nonane-8-methanol, 9-(1,3-benzodioxol-5-yl)-7-ethyl-1-  
[(methylsulfinyl)acetyl]-6-phenyl-, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.

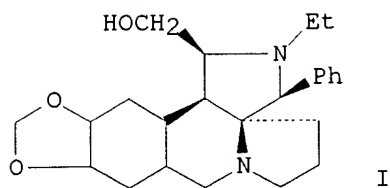


RN 171231-94-0 CAPLUS  
CN 1,7-Diazaspiro[4.4]nonane-8-carboxylic acid, 9-(1,3-benzodioxol-5-yl)-7-  
methyl-2-oxo-6-phenyl-, ethyl ester, (5.alpha.,6.alpha.,8.beta.,9.beta.)-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.



L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1994:534528 CAPLUS  
DN 121:134528  
TI 1,3-Dipolar cycloaddition approach towards the stereoselective preparation  
of aza-cephalotaxine skeleton  
AU Nyerges, Miklos; Bitter, Istvan; Kadas, Istvan; Toth, Gabor; Toke, Laszlo  
CS Dep. Organic Chem. Technol., Techn. Univ. Budapest, Budapest, H-1521,  
Hung.  
SO Tetrahedron Letters (1994), 35(25), 4413-14  
CODEN: TELEAY; ISSN: 0040-4039  
DT Journal  
LA English  
OS CASREACT 121:134528  
GI



AB The aza-analog of a cephalotaxine skeleton I has been prepd. by series of reactions which include a 1,3-dipolar cycloaddn. in 100% diastereoselectivity.

IT **157035-39-7P 157035-40-0P**

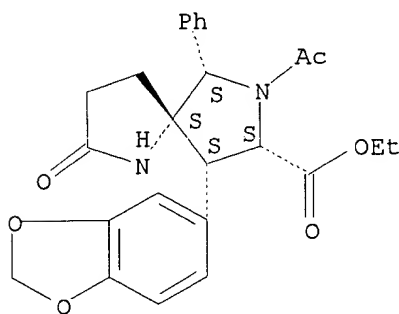
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of azacephalotaxine skeleton)

RN 157035-39-7 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-carboxylic acid, 7-acetyl-9-(1,3-benzodioxol-5-yl)-2-oxo-6-phenyl-, ethyl ester, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)-(9CI) (CA INDEX NAME)

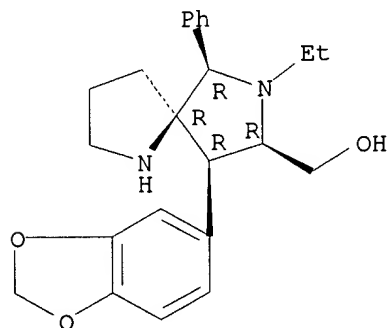
Relative stereochemistry.



RN 157035-40-0 CAPLUS

CN 1,7-Diazaspiro[4.4]nonane-8-methanol, 9-(1,3-benzodioxol-5-yl)-7-ethyl-6-phenyl-, (5.alpha.,6.alpha.,8.alpha.,9.alpha.)-(9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **157035-41-1P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 157035-41-1 CAPLUS

CN 1H,4H-[1,3]Dioxolo[4,5-g]dipyrrolo[1,2-b:3',4'-c]isoquinoline-1-methanol,

2-ethyl-2,3,5,6,8,13b-hexahydro-3-phenyl-, (1.alpha.,3.alpha.,3aR\*,13b.bet  
a.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

